



Administrative County of Middlesex.

ANNUAL REPORT

OF THE

COUNTY MEDICAL OFFICER OF HEALTH

FOR THE

YEAR 1947.



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PREFACE.

To the Chairman, Aldermen and Members of the County Council of Middlesex.

SIR, LADIES AND GENTLEMEN,

I have the honour to submit my report on the health of the County for the year 1947. It is much regretted that, owing to the great pressure of work entailed in connection with the implementation of the new legislation and shortage of staff, the completion of the report has been unavoidably delayed.

This was a year of strenuous preparation for the sweeping changes in Public Health administration which the operation of the National Health Service Act, 1946, would bring about in 1948. Probably no county in England and Wales was more fundamentally or drastically affected than Middlesex. The hospital service which, during the years of its administration, the County Council had built up to a standard of efficiency unsurpassed, and possibly unequalled, in the country was to be handed over and divided between the North West and North East Metropolitan Regional Hospital Boards. In exchange it became the duty of the County Council to take over the functions of no less than 17 autonomous Maternity and Child Welfare authorities. Some of these authorities had built up services of which they were justly proud and which could challenge comparison with that of any authority in the country, not excluding Middlesex itself.

It was no cause for surprise, therefore, that many of these authorities viewed the impending surrender of their responsibilities to the County Council with the greatest distaste and could not readily be convinced that the standard of efficiency they had reached would even be maintained, let alone raised, under the new dispensation. It should be recognised quite frankly that herein lies a genuine challenge to the County Council, not merely to establish a Maternity and Child Care Service throughout the County no less efficient than that for which it has always been responsible, but to incorporate also the best features from each of the autonomous services being taken over, so that the new unified service develops into something better than was offered by any single one of the units of which it will be an amalgam. With its record as a Hospital Authority before him, no unbiassed observer should feel any doubt of the County Council's ability and intention to meet that challenge with vision and determination.

In order to obtain the necessary information for the drafting of the various schemes which had to be prepared in accordance with Part III of the National Health Service Act, I visited personally, during the second half of the year, the Medical Officer of Health of every autonomous Maternity and Child Welfare authority in the County. It would be idle to pretend that it was possible, in the limited time available, to carry out anything like a complete survey of each authority's service. The broad outlines were, however, discussed with the several Medical Officers of Health, and as many of the clinic premises, &c., as possible were inspected. The information thus obtained, together with that contained in a very comprehensive questionnaire which was completed by each Medical Officer of Health, made it possible to obtain both qualitatively and quantitatively a reasonably accurate picture of the position in each district.

I was accompanied on these visits by the Chief Clerk of the Public Health Department, Mr. W. J. Mihill, who enquired particularly into the nature of the administrative organisations which would have to be taken over. He was at the same time able to make direct personal contact with the Chief Clerks of the various local authorities and thus to establish before the appointed day a system of co-operation through which adequate preparations could be made to integrate the local administrations with the County system with the minimum friction. The insight into the autonomous services which Mr. Mihill gained as a result of these visits also enabled me to entrust him with the initial drafting of most of the schemes which the County Council was required to prepare under Sections 22 to 29 of the Act. This he did so efficiently that after discussing them with the various officers concerned, the Clerk of the County Council was able to submit them to the Health Services Development Committee practically without alteration and they were ultimately adopted by the County Council with no more than minor amendments.

Advantage was also taken of my visits to the district Medical Officers of Health to ascertain their views regarding the most efficient system of Area health administration and their personal relationship to it. In consequence I became convinced of the wisdom of granting to Area Health Committees the maximum possible delegation of the day to day administration of the local personal health services and appointing whole-time District Medical Officers of Health as Area Medical Officers in the service of the County Council, entrusting them with the fullest possible measure of direct and unfettered personal responsibility to their Area Committees. This principle was, in fact, adopted by the County Council in the drafting of its scheme of Area health administration. I feel sure that the passage of time will furnish abundant proof of the far-sightedness of this policy.

I should not omit, at this point, to acknowledge with appreciation the cordial manner in which I was received by all the District Medical Officers of Health without exception. It was not to be expected that any of them would view without regret the inevitable surrender of at least part of their authority over the services which they had hitherto administered with ability and pride. Notwithstanding this wholly natural reaction, I met with nothing but the expression of their determination to co-operate to their utmost in building up the most efficient Health Service possible under the new system of administration and I received many valuable and constructive suggestions to this end. The result was that the preparatory work for the transfer of functions from local authorities to the County Council proceeded on the medical side with a smoothness which exceeded my most sanguine expectations.

Reference must be made to another important new development in the Public Health functions of the County Council which took place during the year. Wide as was the range of such functions exercised by the County Council it had not hitherto included among them that of a Port Sanitary Authority. In view of the geographical position of Middlesex this was, until recently, only to be expected. The growth of air transport, however, has brought into existence a new type of port, quite independent of a seaboard or important inland waterways, namely the airport. Two important airports are situated within Middlesex—London Airport at Heathrow and Northolt Airport. In the past the Health Control Service at airports has been administered by the Ministry of Health direct, but as from 1st July, 1947, the Health Control Units at the two airports mentioned were transferred to the administration of the Middlesex County Council and the officers engaged in them entered the employment of the County Council. The Ministry of Health, however, continued to reimburse the County Council 100 per cent. of the cost.

The main function of the Health Control Unit is to detect persons who may be suffering from or contacts of infectious disease and to take all necessary steps to prevent the spread of infection. The work is thus broadly analogous to that carried out by a Port Sanitary Authority in the sphere of ocean travel. There is, however, the important difference that the rapidity of air travel means that a passenger who has been exposed, perhaps without his knowledge, to an infectious disease before or during the course of his journey, may reach this country well within the incubation period of the disease in question. This obviously throws an added responsibility upon the medical officers of the Health Control Unit, who must add to their medical knowledge an intimate acquaintance with world-wide epidemiological conditions. Health Control work at airports is still in its comparative infancy but there is every reason to anticipate that it will grow rapidly and it may well be that in the not distant future Middlesex will become one of the principal Port Sanitary Authorities in the country.

As regards infectious disease the year was, except in one respect, a satisfactory one and in a number of directions really solid progress was achieved. Outstanding was the further dramatic reduction in the incidence of diphtheria. The number of cases notified was less than half that recorded in any previous year. In six out of the 26 sanitary districts in the County not a single case of diphtheria occurred throughout the year. The reduction in the number of deaths from the disease was even more remarkable. In the whole of the County only three fatal cases occurred compared with 13 in 1946, which was the previous low record. These figures bear eloquent testimony to the value of the campaign for immunisation against diphtheria which has continued to be waged with all possible vigour.

There was also a welcome decline in the deaths from tuberculosis, the number of which both per 1,000 total population and per 1,000 known cases was the lowest on record. A warning against complacency, however, is furnished by the incidence rate per 1,000 population which stood at 5·74 per 1,000 and thus was considerably higher than the corresponding figure for a year so long ago as 1936 when it was 3·83 per 1,000. It is evident, therefore, that while there has been a substantial advance in the efficiency of the treatment of the disease, a similar claim cannot as yet be made for the preventive measures which are in operation. The focal point in the control of tuberculosis both from the therapeutic and the preventive aspect is the tuberculosis officer. It will be important to ensure that the transfer of responsibility for treatment of the disease to the Regional Hospital Boards does not result in any lessening of the close association of the tuberculosis officer with the measures for prevention, care and after-care which it will remain the duty of the County Council as Local Health Authority to administer.

The year, in other respects so satisfactory from the point of view of infectious disease, unfortunately was marred by a notable increase in the prevalence of acute anterior poliomyelitis, or as it is possibly more familiarly known, infantile paralysis. It would be perhaps unduly alarmist to characterise the outbreak as a serious epidemic, since there were no more than 404 confirmed cases in all. Even so these figures easily constituted a record incidence since the disease first became compulsorily notifiable in 1912 and this fact, together with the high case-mortality rate of nearly 8 per cent., undoubtedly gave rise to a considerable amount of public alarm. Unfortunately there is as yet so little accurate knowledge of the aetiology of the disease that measures of control are still largely empirical in nature and a matter of trial and error.

It is satisfactory to note that the figures for both infantile and maternal mortality are again very low. In each case they are the second lowest on record. In connection with the subject of maternity it is worthy of notice that more than 90 per cent. of the midwives in the domiciliary midwifery service of the County Council, have now been trained in the use of gas and air analgesia during child birth.

It gives me great pleasure to be able to pay tribute to the consideration and support at all times accorded to the County Medical Officer by the Chairman and members of the Public Health, Maternity and Child Welfare, and Health Services Development Committees. In particular I would like to express my indebtedness to Mr. County Alderman Richardson, Chairman of the last-mentioned Committee, for the most patient, sympathetic and thorough manner in which he dealt with the many extremely difficult and complex problems upon which there was occasion to consult him during the second half of the year.

No praise could be too high for the devotion to duty displayed by all members of the staff of the County Health Department during an extremely difficult year. Without any increase in numbers they had to carry on all the normal activities of the Department, including the administration of the Hospital Service, and at the same time undertake an enormous volume of entirely new work in connection with the schemes which had to be prepared in accordance with the requirements of Part III of the National Health Service Act, 1946. Moreover, before the end of the year a number of staff who were transferable on the appointed day under the Act to the new Regional Hospital Boards, were permitted to give part-time service to the Boards in advance of their actual transfer in order to give assistance in the preparatory work which was necessary. There were periods when the burden placed upon the staff seemed almost unsupportable but with the determined and willing co-operation of all concerned it was successfully shouldered.

I have the honour to be,

Your obedient servant,

A. C. T. PERKINS,
County Medical Officer.

COUNTY HEALTH DEPARTMENT,
10, GREAT GEORGE STREET,
WESTMINSTER, S.W.1.

July, 1949.

STAFF

County Medical Officer of Health and School Medical Officer :

H. M. C. Macaulay, M.D., B.S., B.Sc., D.P.H.

Deputy County Medical Officer of Health and Deputy School Medical Officer :

A. C. T. Perkins, M.C., M.D., B.S., D.P.H.

Principal Assistant Medical Officers :

Miss M. Back, M.D., B.S., D.P.H.

J. B. Ewan, M.D., Ch.B., D.P.H.

J. O. F. Davies, M.D., B.S., D.P.H., D.R.C.O.G.

W. Hartston, M.D., B.S., M.R.C.P., D.P.H.,
D.T.M. & H.

Tuberculosis Medical Officers :

Beatrice A. Butterworth, M.B., M.R.C.P.

T. A. C. McQuiston, M.D., M.B., Ch.B. (Ap-
pointed 10th February, 1947.)

J. Vernon Davies, M.D., M.R.C.P. (Appointed
10th March, 1947.)

N. Macdonald, M.B., Ch.B., M.R.C.P.

R. Heller, M.D.

J. T. N. Roe, M.D., Ch.B., D.P.H.

J. V. Hurford, M.D., M.R.C.P., D.P.H. (Ap-
pointed 24th March, 1947.)

C. H. C. Toussaint, M.R.C.S., L.R.C.P., D.P.H.

H. J. Trenchard, M.B., Ch.B., M.R.C.P.

Assistant Tuberculosis Officers :

F. C. N. Holden, M.B., B.S.

C. J. Stewart, M.D., M.R.C.S., L.R.C.P.,
D.R.C.O.G.

B. U. Meyer, M.R.C.S., L.R.C.P., D.C.H. (Ap-
pointed 9th January, 1947.)

P. Stradling, M.B., B.S., M.R.C.S., M.R.C.P.

H. W. Rees, M.R.C.S., L.R.C.P.

W. Traub, M.R.C.S., L.R.C.P. (Appointed
24th February, 1947.)

P. W. Roe, M.B., B.Ch. (Appointed 28th July,
1947.)

Ian Young, M.B., Ch.B. (Appointed 1st Septem-
ber, 1947.)

J. Silberstein, M.D. (Appointed 1st September,
1947.)

Physician in Charge Mass X-Ray Unit—No. 1.

W. Pointon Dick, M.R.C.S., L.R.C.P.

Physician in Charge Mass X-Ray Unit—No. 2.

T. G. Paxon, M.R.C.S., L.R.C.P. (Appointed
22nd December, 1947.)

Assistant Medical Officers :

(Maternity and Child Welfare and School Medical Services.)

Miss H. Broda, M.D. (Vienna).

Miss E. M. Malmberg, M.B., B.S., D.P.H.

Miss J. R. Campbell, M.B., Ch.B., D.P.H.

Mrs. L. A. Matheson, M.B., Ch.B., D.P.H.

Miss M. L. Campbell, M.B., B.Ch., B.A.O.,
D.P.H.

H. W. Moir, M.B., Ch.B., D.P.H.

Mrs. D. L. Carter, M.B., B.S.

Miss M. M. O'Connor, M.R.C.S., L.R.C.P.
D.P.H.

F. Cockcroft, M.A., M.R.C.S., L.R.C.P., D.P.H.

H. Polak, M.D. (Prague), D.C.H. (Eng.).

G. David, M.D. (Berlin), M.R.C.S., L.R.C.P.

† Miss M. K. Ruddy, M.D., B.S., B.Sc.

Miss J. K. Ferreira, M.R.C.S., L.R.C.P.

‡ Mrs. E. Shannon, M.B., Ch.B.

Miss K. Glyn-Jones, M.R.C.S., L.R.C.P.

Miss E. S. Stephen, M.B., Ch.B., D.P.H.

R. A. Jones, M.B., Ch.B., B.Sc., D.P.H.

Chief Dental Officer :

J. F. Pilbeam, F.D.S., R.C.S. (Eng.).

† Psychiatrist, Middlesex Education Committee.

‡ Part-time.

Dental Officers :

A. S. Carr, L.D.S.	L. C. Mandeville, L.D.S.
R. E. Cook, L.D.S.	A. H. Millett, L.D.S.
G. M. Davie, L.D.S.	D. C. O'Regan, L.D.S.
N. K. Davison, L.D.S. (Appointed Dec., 1946.)	Mrs. T. Schroetter, M.D.
W. G. C. Hackman, L.D.S.	†Miss G. M. Seal, L.D.S.
Miss C. C. Jefferson, L.D.S.	S. R. Story, L.D.S.
S. A. McLaren, L.D.S.	Miss M. V. Williams, L.D.S.
G. A. McMurdo, L.D.S.	C. P. H. Witton, L.D.S.

Orthodontist :

†Miss K. C. Smyth, L.D.S.

Assistant Orthodontists :

†Mrs. C. M. Figgis, L.D.S. †Mrs. M. C. Strange, L.D.S.
 †Mrs. E. M. Johnson, L.D.S.

Specialist Dental Officer :

S. E. Charman, M.B.E., L.D.S.

Non-medical Supervisor of Midwives :

Miss L. B. Young, S.R.N., S.C.M.

Assistant Supervisor of Day Nurseries :

Miss J. M. Akester, S.R.N., S.C.M., D.N.

Special Services Almoners :

Miss D. Myer. Mrs. R. J. Schrire (Appointed 25th May, 1947.)

<i>Tuberculosis Visitors</i>	...	...	...	...	...	...	...	...	...	31
<i>Tuberculosis Welfare Officers and Assistant Welfare Officers</i>	...	...	...	...	...	...	...	...	...	12
<i>Health Visitors and School Nurses (including 1 part-time)</i>	...	...	...	...	...	...	...	...	...	52
<i>Dental Attendants</i>	...	...	...	...	...	...	...	...	...	16
<i>Midwives</i>	...	...	...	...	...	...	...	...	...	34

Ophthalmic Surgeons (part time) :

(*Maternity and Child Welfare, School Medical Service, Certification of Blind Persons*)

R. E. Henry, M.B., Ch.M., D.O.M.S.	J. Joels, M.B., Ch.B., D.O.M.S.
A. Holmes-Smith, M.B., B.Chir., D.O.M.S.	C. Yow, M.D., Ch.B.
Miss E. Howes, M.R.C.S., L.R.C.P.	

HOSPITALS*

NORTH MIDDLESEX COUNTY HOSPITAL.

Medical Director :

Ivor Lewis, M.D., M.S., D.P.H.

Physicians :

D. Ferriman, D.M., M.R.C.P.
 R. Kempthorne, M.A., B.M., B.Ch., M.R.C.P.
 N. Whittaker, M.D., M.R.C.P.

Surgeons :

H. W. Hall, M.B., B.S., F.R.C.S.
 B. H. Page, M.R.C.S., L.R.C.P., M.Ch.,
 F.R.C.S.

Obstetric Surgeons :

‡K. A. Hudson, M.B., Ch.M., M.R.C.O.G.
 A. W. Purdie, M.B., Ch.B., F.R.C.P. & S.,
 M.R.C.O.G.

Pathologists :

J. F. Heggie, V.D., B.Sc., M.B., Ch.B.

Anæsthetists :

Miss N. I. Faux, M.B., B.S., D.A., D.P.H.
 G. S. A. Knowles, M.B., B.S., D.A.

Matron :

Miss D. G. Rootham.

REDHILL COUNTY HOSPITAL.

Medical Director :

J. N. Deacon, M.C., M.B., B.S.

Physicians :

L. I. M. Castleden, M.D., M.R.C.P.
 G. H. Jennings, M.A., M.D., M.R.C.P.

Surgeons :

D. B. Craig, F.R.C.S., D.L.O.
 F. Forty, M.B., B.S., F.R.C.S.
 R. Trevor Jones, B.Sc., M.B., B.S., F.R.C.S.
 (part-time).

Obstetric Surgeons :

E. ap. I. Rosser, M.B., B.S., M.R.C.O.G.
 Mrs. M. Rose, M.B., B.S., M.R.C.O.G.

Pathologists :

J. L. Hamilton-Paterson, M.D., B.S.
 E. D. Hoare, M.A., M.D., B.Ch.

Anæsthetist :

‡J. H. Attwood, M.B., B.S., D.A.

Matron :

Miss E. R. Wheeldon.

CENTRAL MIDDLESEX COUNTY HOSPITAL.

Medical Director :

H. Joules, M.D., F.R.C.P.

Physicians :

‡F. Avery Jones, M.D., F.R.C.P.
 R. A. J. Asher, M.D., M.R.C.P.
 R. J. Porter, M.B., M.R.C.P.

Surgeons :

T. G. I. James, B.Sc., M.Ch., F.R.C.S.
 J. D. Fergusson, M.D., F.R.C.S.
 C. F. Chapple, M.B., B.S., F.R.C.S.
 C. J. Evans, M.B., F.R.C.S. (Temp.)

Obstetric Surgeons :

J. S. MacVine, M.B., F.R.C.S., M.R.C.O.G.
 Miss M. A. M. Bigby, M.D., M.R.C.O.G.

Pathologists :

Anæsthetists :
 I. Davenport Jones, M.B., D.A.
 A. C. R. Rankin, M.B., D.A.

J. D. A. Gray, M.B., B.Sc., F.R.C.P.E., D.P.H.
 W. Pagel, M.D.
 G. Discombe, M.D., B.Sc.

Matron :

Miss E. S. Laing.

* Staff as on 31st December, 1945.

‡ Deputy Medical Director.

HILLINGDON COUNTY HOSPITAL.

Medical Director :

W. A. Steel, M.D., Ch.B., F.R.C.P.

Physicians :

‡E. B. Jackson, M.D., M.R.C.P.
C. R. Baxter, M.B., M.R.C.P.

Surgeons :

L. Fatti, M.B., B.S., F.R.C.S.
‡G. W. Duncan, M.B., B.S., F.R.C.S.
H. G. Hanley, M.D., B.S., F.R.C.S. (H.M.
Forces.)
C. G. Scorer, M.B., F.R.C.S.

Obstetric Surgeon :

Miss J. Morgan, M.D., B.S., M.R.C.O.G., D.A.

Senior Anæsthetist :

H. J. V. Morton, M.A., M.D., D.A.

Pathologist :

H. Rogers, M.D., M.B., Ch.B.

Matron :

Miss E. Hagland.

WEST MIDDLESEX COUNTY HOSPITAL.

Medical Director :

R. L. Galloway, M.B., Ch.B., F.R.C.S.(Edin.).

Deputy Medical Director :

Miss W. M. Warren, M.R.C.S., L.R.C.P.

Senior Physicians :

N. F. Coghill, M.A., M.B., B.Ch., M.R.C.S.,
M.R.C.P.
M. M. Deane, M.B., B.S., M.R.C.P., D.P.M.,
D.A.
J. A. Torrens, M.D., F.R.C.P.

Senior Surgeons :

W. J. Ferguson, M.S., F.R.C.S.
M. Rassin, M.B., Ch.B., F.R.C.S.
J. Scholefield, M.B., Ch.B., F.R.C.S.

Senior Obstetric Surgeons :

D. A. Davies, M.R.C.S., L.R.C.P., M.R.C.O.G.
D. M. Stern, M.A., F.R.C.S., F.R.C.O.G.
C. W. F. Burnett, M.D., M.R.C.O.G.

Pathologists :

A. C. Spence, M.R.C.S., L.R.C.P.

Anæsthetists :

F. R. Russell, M.R.C.S., L.R.C.P., D.A.
D. F. Rees, M.R.C.S., L.R.C.P., D.A.

Matron :

Miss A. M. D. Leslie.

CHASE FARM EMERGENCY HOSPITAL.

Acting Medical Director :

C. A. Birch, M.D., F.R.C.P., D.P.H., D.C.H.

Physicians :

C. A. Birch, M.D., F.R.C.P., D.P.H., D.C.H.
T. Simpson, M.D., M.R.C.P.

Surgeons :

H. O. Blauvelt, M.D., C.H., F.R.C.S.
T. M. Pemberton, O.B.E., F.R.C.S.

Anæsthetists :

H. F. Patrick, M.R.C.S., L.R.C.P., D.A.
D. C. R. R. Jenkins, M.R.C.S., L.R.C.P., D.A.

Matron :

Miss G. M. Jones.

ASHFORD COUNTY HOSPITAL.

Medical Director :

G. Stephen, M.B., Ch.B., F.R.C.S.

Deputy Medical Director :

W. E. F. Evans, M.R.C.S., L.R.C.P., D.A.

Surgeon :

E. N. Callam, D.T.M., F.R.C.S.
N. M. Matheson, M.B., B.Ch., F.R.C.S., F.A.C.S.,
M.R.C.P.

Physician :

A. Barham Carter, M.D., M.R.C.P., D.P.M.
(H.M. Forces.)

Matron :

Miss E. P. McWilliam.

SUMMARY OF VITAL STATISTICS RELATING TO THE ADMINISTRATIVE COUNTY
OF MIDDLESEX.

Area (including inland water)	148,691 acres.
Population 1931 (census)	1,638,728
,, 1947 (Estimated by Registrar-General)	2,248,180
Number of structurally separate dwellings occupied, 1931 (census) ...	348,595
Number of private families, 1931 (census)	431,368
Rateable value	£22,363,475
Product of a penny rate, financial year	£91,582
Live births—	
Legitimate	Males. Females. Total.
Illegitimate	21,465 20,469 41,934
,, 1,022 999 2,021	
Birth-rate per 1,000 total population	19·6 (England & Wales, 20·5)
Stillbirths	950
,, Rate per 1,000 total births	21·2 (,, ,, 24·0)
Deaths	22,440
Death-rate	10·0 (,, ,, 12·0)
Number of women dying from diseases and accidents of pregnancy and childbirth :—	
From sepsis	11
From other causes	37
Maternal mortality rate per 1,000 live births	1·09 (England & Wales,* 1·04)
,, ,, ,, ,, total ,,	1·07 (,, ,, 1·17)
Infantile mortality rate per 1,000 live births :—	
Legitimate	30·9
Illegitimate	45·0
Total	31·5 (,, ,, 41)
Deaths from cancer (all ages)	3,861
,, measles (all ages)	25
,, whooping cough (all ages)	37
,, diarrhoea (under 2 years of age)	151

* This Maternal Mortality figure does *not* include deaths following abortion.

The other Maternal Mortality figures are supplied by the Registrar General and do not differentiate post abortion deaths from other mortality associated with pregnancy and child-birth.

Administrative County of Middlesex.

ANNUAL REPORT OF THE COUNTY MEDICAL OFFICER FOR THE YEAR 1947.

VITAL STATISTICS.

AREA.—The area of the County of Middlesex, inclusive of inland water, is 148,691 acres.

There are no county boroughs in Middlesex, so that the area of the administrative county coincides with that of the geographical county.

There are 26 separate local government areas in the County comprising 15 Municipal Boroughs with an area of 70,196 acres and 11 Urban Districts with an area of 78,495 acres. There are no Rural Districts in the County.

POPULATION.—The Registrar-General's estimate of population in 1947 was 2,248,180, the highest recorded in the history of the County. From the figures for the last ten years, set out below, it is evident that the diminution in civilian population which occurred during the war years through evacuation, enlistment, &c., has been overtaken.

1938	...	...	2,058,300	1943	...	...	1,938,000
1939	...	...	2,103,300	1944	...	...	1,902,500
1940	...	...	1,952,100	1945	...	...	1,958,000
1941	...	...	1,874,900	1946	...	...	2,178,010
1942	...	...	1,929,900	1947	...	...	2,248,180

The steady pre-war increase of population appears to have been resumed. The population of the County has doubled in 33 years without any increase in area and with a continuous absorption of land for industrial and transport (including airport) purposes.

In the absence of recent census figures it has again been necessary to use the population estimate provided by the Registrar-General for the calculation of death rates, the incidence of notifiable diseases among civilians, and for the calculation of birth-rates in 1947.

The following table gives statistical information regarding the distribution of acreage and population within the administrative county :

ACREAGE AND POPULATION.

Boroughs and Urban Districts.	Acreage.	Population.				No. of separately rated dwellings, end of 1947.	No. of persons per dwelling.
		Census.		Estimated by Registrar-General.			
		1921.	1931.	1938.	1947.		
Acton (<i>Borough</i>)	2,318	60,817	70,008	68,670	67,920	17,046	4.0
Brentford and Chiswick (<i>Borough</i>)	2,333	58,499	63,217	61,470	59,180	17,000	3.5
Ealing (<i>Borough</i>)	8,783	90,312	116,771	161,000	183,940	46,724	3.9
Edmonton (<i>Borough</i>)	3,896	66,807	77,658	103,200	106,760	27,976	3.8
Enfield	12,401	60,464	67,752	91,940	107,920	30,263	3.6
Feltham	4,925	11,392	16,064	30,450	39,760	10,332	3.8
Finchley (<i>Borough</i>)	3,475	46,628	59,113	65,140	70,710	19,228	3.7
Friern Barnet	1,340	17,137	22,715	27,120	28,940	7,328	3.9
Harrow	12,559	49,020	96,656	183,500	215,930	58,984	3.7
Hayes and Harlington	5,160	9,042	22,969	43,930	66,670	16,224	4.1
Hendon (<i>Borough</i>)... ..	10,373	57,566	115,640	145,100	158,670	40,243	3.9
Heston and Isleworth (<i>Borough</i>)	7,219	47,463	76,254	101,500	106,670	27,613	3.9
Hornsey (<i>Borough</i>)	2,872	87,532	95,416	96,680	97,510	23,334	4.2
Potters Bar	6,129	3,222	5,720	12,010	16,120	4,554	3.5
Ruislip-Northwood	6,583	9,112	16,035	40,820	64,590	17,520	3.7
Southall (<i>Borough</i>)	2,606	30,165	38,839	52,400	56,240	14,719	3.8
Southgate (<i>Borough</i>)	3,763	39,525	56,063	67,860	74,320	21,361	3.5
Staines	8,273	17,060	21,336	29,920	37,670	9,551	3.9
Sunbury	5,608	9,904	13,451	16,580	21,550	5,900	3.6
Tottenham (<i>Borough</i>)	3,013	146,726	157,667	144,400	129,140	30,040	4.3
Twickenham (<i>Borough</i>)	7,013	69,948	79,299	96,550	105,930	28,911	3.7
Uxbridge	10,240	20,626	31,887	42,800	50,360	13,127	3.8
Wembley (<i>Borough</i>)	6,292	18,239	65,799	118,800	132,870	38,000	3.5
Willesden (<i>Borough</i>)	4,633	165,742	185,025	187,600	178,080	42,000	4.2
Wood Green (<i>Borough</i>)	1,607	50,791	54,308	53,190	52,290	13,250	3.9
Yiewsley and West Drayton	5,277	9,163	13,066	15,670	18,440	4,654	3.9
The County	148,691	1,253,002	1,638,728	2,058,300	2,248,180	585,882	3.8

BIRTHS AND BIRTH-RATES.—Birth statistics for the last five years for Middlesex, London, the Great Towns, and England and Wales are given in the following table:—

Year.	Middlesex.		London.	“ Great Towns.”	England and Wales
	Number of live births.	Rate per 1,000 population.	Rate per 1,000 population.		
1943	35,339	18·2	15·8	18·6	16·5
1944	36,380	19·1	15·0	20·3	17·6
1945	33,398	17·1	15·7	19·1	16·1
1946	42,108	19·3	21·5	22·2	19·1
1947	43,955	19·6	22·7	23·3	20·5

The birth rate for Middlesex continues to rise, although the increase is not so pronounced as in other parts of the country. Nevertheless, one has to go back to 1921 to find a higher rate for the County.

The following table shows the number of legitimate and illegitimate births, for each year since 1938:—

	Legitimate births.	Illegitimate births.	
		Number.	Percentage of Total births.
1938	30,341	1,276	4·0
1939	30,612	1,259	3·9
1940	28,356	1,161	3·9
1941	25,888	1,339	4·9
1942	31,547	1,603	4·8
1943	33,557	1,782	5·0
1944	34,375	2,005	5·5
1945	31,042	2,356	7·1
1946	39,954	2,154	5·1
1947	41,934	2,021	4·6

It will be observed that the number of illegitimate births is 133 less than in 1946, although approximately 2,000 more legitimate births were recorded. Thus, since the termination of the War, there has been a decrease in the proportion of illegitimate to legitimate births.

Information regarding the births and birth-rates in each district in the County is set out in descending order of magnitude of birth-rate in the following table:—

BIRTHS AND BIRTH-RATES IN EACH DISTRICT, 1947.

Boroughs and Urban Districts.	Net number.	Rate per 1,000 population.	Boroughs and Urban Districts.	Net number.	Rate per 1,000 population.
Yiewsley and West Drayton	422	22·9 (21·0)	Twickenham (<i>Borough</i>)	2,089	19·7 (19·0)
Uxbridge	1,135	22·5 (20·0)	Sunbury	423	19·6 (21·4)
Staines	832	22·1 (21·3)	Brentford and Chiswick		
Feltham	866	21·8 (20·3)	(<i>Borough</i>)	1,147	19·4 (20·4)
Tottenham (<i>Borough</i>)	2,785	21·6 (20·7)	Potters Bar	306	19·0 (18·4)
Enfield	2,312	21·4 (20·9)	Ruislip-Northwood ...	1,211	18·7 (19·3)
Hayes and Harlington	1,424	21·4 (20·2)	Finchley (<i>Borough</i>) ...	1,319	18·6 (17·6)
Willesden (<i>Borough</i>)	3,859	21·2 (20·9)	Harrow	3,828	17·7 (18·7)
Hornsey (<i>Borough</i>) ...	2,043	21·0 (21·6)	Friern Barnet	510	17·6 (17·4)
Edmonton (<i>Borough</i>)	2,198	20·6 (20·2)	Heston and Isleworth		
Wood Green (<i>Borough</i>)	1,066	20·4 (19·5)	(<i>Borough</i>)	1,846	17·3 (17·3)
Acton (<i>Borough</i>)	1,364	20·1 (19·8)	Wembley (<i>Borough</i>) ...	2,279	17·2 (17·2)
Ealing (<i>Borough</i>)	3,666	19·9 (19·7)	Hendon (<i>Borough</i>) ...	2,671	16·8 (17·2)
Southall (<i>Borough</i>)	1,108	19·7 (20·0)	Southgate (<i>Borough</i>) ...	1,246	16·8 (16·7)

The corresponding birth-rates for the year 1946 are shown in brackets.

Vital Statistics.

DEATHS AND DEATH-RATES (ALL CAUSES).—The comparative figures for Middlesex, London, the Great Towns and England and Wales as a whole are set out in the following table:—

Year.	Middlesex		London.	"Great Towns."	England and Wales.
	Deaths.	Rate per 1,000 population.	Rate per 1,000 population.		
1943	21,397	11·0	15·0	14·2	12·1
1944	21,104	11·1	15·7	13·7	11·6
1945	20,523	10·5	13·8	13·5	11·4
1946	21,653	9·9	12·7	12·7	11·5
1947	22,440	10·0	12·8	13·0	12·0

For the reasons mentioned in the report for 1941-42 the issue of a "comparability factor" for each county and county district has been suspended. Figures of the "corrected" death-rate are therefore not available.

The table which follows gives information as to the number of deaths and the death-rate in each district in Middlesex.

DEATHS AND DEATH-RATES IN EACH DISTRICT, 1947.

Boroughs and Urban Districts.	Under 1 year of age.		At all ages.	
	No.	Rate per 1,000 children born in the year.	No.	Rate per 1,000 population.
Acton (<i>Borough</i>)	51	37·4	722	10·6
Brentford and Chiswick (<i>Borough</i>)	42	36·6	720	12·2
Ealing (<i>Borough</i>)	134	36·6	1,932	10·5
Edmonton (<i>Borough</i>)	80	36·4	1,026	9·6
Enfield	75	32·4	1,015	9·4
Feltham... ..	45	52·0	315	7·9
Finchley (<i>Borough</i>)	28	21·2	831	11·8
Friern Barnet	17	33·3	265	9·2
Harrow	92	24·0	1,834	8·5
Hayes and Harlington	49	34·4	449	6·7
Hendon (<i>Borough</i>)	71	26·6	1,522	9·6
Heston and Isleworth (<i>Borough</i>)	72	39·0	1,118	10·5
Hornsey (<i>Borough</i>)	54	26·4	1,205	12·4
Potters Bar	10	32·7	143	8·9
Ruislip-Northwood	32	26·4	502	7·8
Southall (<i>Borough</i>)	43	38·8	488	8·7
Southgate (<i>Borough</i>)	41	32·9	836	11·2
Staines	41	49·3	402	10·6
Sunbury	13	30·7	226	10·5
Tottenham (<i>Borough</i>)	76	27·3	1,461	11·3
Twickenham (<i>Borough</i>)	84	40·2	1,171	11·1
Uxbridge	32	28·2	486	9·7
Wembley (<i>Borough</i>)	53	23·3	1,124	8·5
Willesden (<i>Borough</i>)	117	30·3	1,844	10·4
Wood Green (<i>Borough</i>)	30	28·1	649	12·4
Yiewsley and West Drayton	4	9·5	154	8·4
The County	1,386	31·5	22,440	10·0

Vital Statistics.

CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE IN THE ADMINISTRATIVE
COUNTY OF MIDDLESEX, 1947.

Causes of Death.	All Ages	0—	1—	5—	15—	45—	65—
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Typhoid and Paratyphoid fevers	1	—	—	—	—	1	—
2. Cerebro-spinal fever	31	7	7	3	8	6	—
3. Scarlet fever	2	1	1	—	—	—	—
4. Whooping cough	37	20	15	2	—	—	—
5. Diphtheria	3	—	1	1	1	—	—
6. Tuberculosis of respiratory system	855	4	12	11	465	289	74
7. Other forms of tuberculosis	107	7	15	19	47	14	5
8. Syphilitic diseases	131	1	—	—	7	58	65
9. Influenza	182	11	5	1	13	33	119
10. Measles	25	7	16	1	1	—	—
11. Acute polio-myelitis and polio-encephalitis	31	—	3	13	14	1	—
12. Acute infective encephalitis	16	—	1	3	3	6	3
13. Cancer of buccal cavity and œsophagus (M), uterus (F)	348	—	—	—	24	141	183
14. Cancer of stomach and duodenum	588	—	—	—	42	213	333
15. Cancer of breast	434	—	—	—	64	190	180
16. Cancer of all other sites ...	2,491	1	12	7	196	977	1,298
17. Diabetes	131	—	—	—	3	29	99
18. Intra-cranial vascular lesions	2,338	1	—	1	41	464	1,831
19. Heart disease	5,923	—	—	2	183	1,184	4,554
20. Other diseases of circulatory system	996	1	—	—	26	195	774
21. Bronchitis	1,401	28	9	—	33	332	999
22. Pneumonia	1,216	222	35	9	56	232	662
23. Other respiratory diseases ...	316	5	4	4	41	123	139
24. Ulcer of stomach or duodenum	241	—	—	1	27	107	106
25. Diarrhoea (under two years)	151	142	9	—	—	—	—
26. Appendicitis	64	—	6	13	12	17	16
27. Other digestive diseases ...	482	15	6	7	42	144	268
28. Nephritis	475	2	1	6	62	133	271
29. Puerperal and post-abortive sepsis	11	—	—	—	11	—	—
30. Other maternal causes	37	—	—	—	37	—	—
31. Premature birth	285	285	—	—	—	—	—
32. Congenital malformations, birth injury, and infantile diseases	584	522	16	6	17	16	7
33. Suicide... ..	243	—	—	—	81	93	69
34. Road traffic accidents	200	—	8	16	73	43	60
35. Other violent causes	476	50	12	23	76	82	233
36. All other causes	1,588	54	33	31	167	358	945
All causes	22,440	1,386	227	180	1,873	5,481	13,293
Proportionate age group mortality	100	6·2	1·0	0·8	8·3	24·4	59·2

The death rate for 1947 was only fractionally higher than in the previous year, and compares very favourably with the rest of England and Wales.

As regards individual causes of death, marked increases are shown in the case of heart disease (5,923 against 5,511), bronchitis (1,401 against 1,261), pneumonia (1,216 against 1,078) cerebro-spinal fever (31 against 19), and acute polio-myelitis and polio-encephalitis (31 against 13). It will be noted that the increase in the number of deaths of heart disease, bronchitis and pneumonia occurs mainly in the oldest age group, *viz.*, 65 years and over.

Vital Statistics.

An outbreak of acute poliomyelitis in the third quarter of the year was responsible for the higher mortality of this disease, and is dealt with later in the section of this report relating to infectious diseases.

Among those causes of death showing definite reductions, it is satisfactory to be able to record a decrease, despite the rise in population, from tuberculosis of the respiratory system and from other forms of tuberculosis; in diphtheria, which, with the remarkably low figure of 3 deaths during the year, emphasises the effects of the protection afforded by immunisation; and in premature birth. The increase in the number of deaths from congenital malformations may be a reflection of the increased total of births or possibly related to the unusual epidemics of measles and poliomyelitis which occurred during the year.

It is also of interest to note that there has been a slight reduction, 24, in the number of deaths due to cancer. Although it would be premature to regard this as significant, it is at least a welcome check in the progressive advance in the percentage of deaths due to this disease which has continued for many years past. Taken in conjunction with the increasing number of survivals to the later decades of life, which has probably been a material factor in this advance, any halt may be regarded as an encouraging sign.

INFANTILE MORTALITY.—Although the infantile death-rate for 1947 was higher than the low record figure of 1946, it is well below the average for recent years. Of the 1,386 infant deaths, the following were between them responsible for over 84 per cent. of the total:—congenital malformations, &c. (522), premature births (285), pneumonia (222) and diarrhoea (under two years) (142).

The infantile mortality rate during the year for that part of the County for which the County Council is the maternity and child welfare authority was 34·1 per 1,000 live births.

The following table gives comparative information as to infantile deaths and death-rates in Middlesex, London, the Great Towns, and England and Wales.

Year.	The County.			London.	Great Towns.	England and Wales.
	Births.	Deaths under 1 year.	Rate per 1,000 live births.	Rate per 1,000 live births.		
1943	35,339	1,536	43	58	58	49
1944	36,380	1,327	36·5	61	52	46
1945	33,398	1,296	38·8	53	54	46
1946	42,108	1,246	29·6	41	46	43
1947	43,955	1,386	31·5	37	47	41

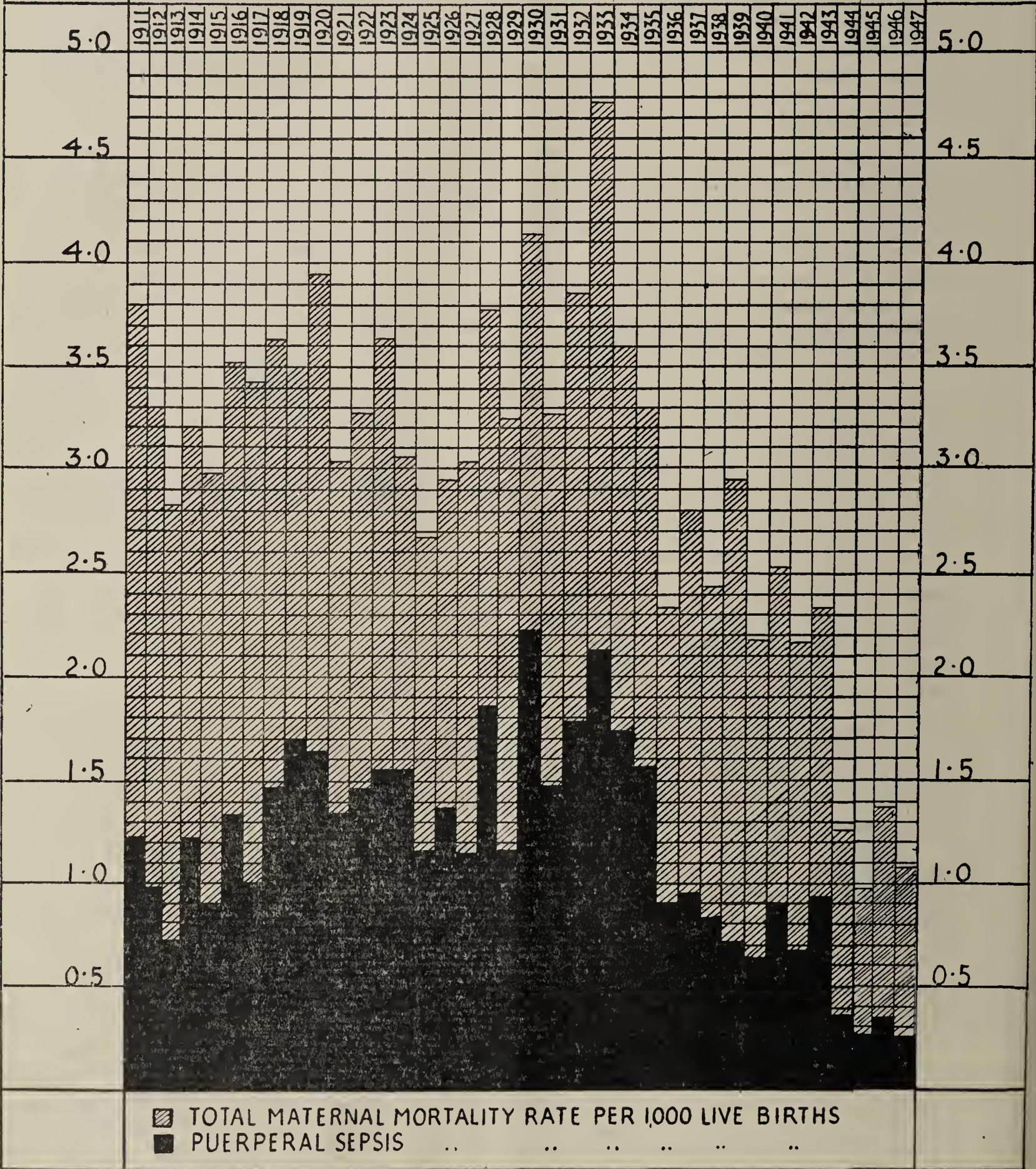
MATERNAL MORTALITY.—The maternal death-rate associated with pregnancy and child birth shows a satisfactory decline by comparison with last year, and, with the exception of 1945, is the lowest on record for Middlesex. Only 11 deaths were attributable to puerperal sepsis, a new low record death-rate of 0·25 per 1,000 live births.

In all, 48 deaths of women in Middlesex during 1947, were due to causes connected with pregnancy and childbirth. These deaths are classified in the following table under the two categories into which they are separated statistically by the Registrar-General:—

Year.	Puerperal sepsis.		Other accidents and diseases of pregnancy and parturition, including abortion.		Total.	
	Number of deaths.	Rate per 1,000 live births.	Number of deaths.	Rate per 1,000 live births.	Maternal deaths.	Maternal mortality rate.
1942	23	0·69	49	1·48	72	2·17
1943	33	0·93	49	1·39	82	2·32
1944	13	0·36	33	0·90	46	1·26
1945	9	0·27	24	0·72	33	0·99
1946	13	0·31	45	1·07	58	1·38
1947	11	0·25	37	0·84	48	1·09

The diagram on page 6 illustrates in graphic form the variations in maternal mortality since the year 1911.

COUNTY OF MIDDLESEX
 • MATERNAL MORTALITY •



TOTAL MATERNAL MORTALITY RATE PER 1000 LIVE BIRTHS
 PUERPERAL SEPSIS

INFECTIOUS DISEASES.

The following tables set out figures showing the incidence of notifiable infectious diseases in Middlesex during 1947 :—

Disease.	Cases Notified.	Case-rate per 1,000 population.	Fatal cases.	Case-mortality rate per cent.	Death-rate per 1,000 population.
Scarlet fever	2,729	1·21	2	0·07	0·001
Diphtheria	129	0·06	3	2·33	0·001
Dysentery	185	0·08	—	—	—
Enteric fever	22	0·01	1	4·55	0·0004
Erysipelas	457	0·20	—	—	—
Cerebro-spinal fever	128	0·06	31	24·2	0·01
Encephalitis lethargica, acute	5	0·002	—	—	—
Poliomyelitis, acute	367	0·16	} 31	—	—
Polioencephalitis, acute	37	0·02			
Measles	16,011	7·12	25	0·16	0·01
Whooping cough	5,448	2·42	37	0·68	0·02
†Pneumonia (acute)	1,542	0·68	} 1,216	{	—
† „ (all forms)	—	—			—
Puerperal pyrexia	509	11·6‡	11	2·16	0·25§
Ophthalmia neonatorum	143	3·25‡	—	—	—
Malaria	10	0·004	—	—	—

† Case-mortality rate cannot be given, as only cases of acute pneumonia are notified, while the figure for deaths includes all forms of the disease.

‡ Case-rate per 1,000 live births.

§ Death-rate per 1,000 live births.

Infectious Diseases.

Boroughs and Urban Districts.	Scarlet fever.	Whooping cough.	Acute poliomyelitis.	Acute encephalitis.	Measles.	Diphtheria.	Acute pneumonia.	Dysentery.	Smallpox.	Acute encephalitis lethargica.	Bacterial fever.	Paratyphoid fevers.	Erysipelas.	Cerebro-spinal fever.	Puerperal pyrexia.	Ophthalmia neonatorum.	Other diseases.
Acton (Borough) ...	53	88	9	—	513	4	46	2	—	—	—	—	7	2	1	—	—
Brentford and Chiswick (Borough) ...	65	76	27	1	438	3	13	—	—	—	—	—	11	1	—	—	—
Ealing (Borough) ...	133	348	46	6	1,189	11	127	5	—	—	—	—	38	27	5	1M	—
Edmonton (Borough) ...	261	183	18	—	783	8	49	1	—	—	1	—	34	77	24	1M	—
Enfield ...	188	441	16	2	1,029	7	67	4	—	—	—	—	22	8	1	3M	—
Feltham ...	12	18	2	—	75	4	4	—	—	—	1	—	3	—	—	—	—
Finchley (Borough) ...	97	138	3	—	167	—	38	11	—	—	—	—	8	2	7	—	—
Friern Barnet ...	41	56	—	—	125	3	15	14	—	—	1	—	7	1	—	—	—
Harrow ...	174	521	30	—	1,252	6	86	7	—	1	6	—	35	17	3	1F	—
Hayes and Harlington ...	42	177	10	2	658	1	36	1	—	—	1	1	3	4	2	2M	—
Hendon (Borough) ...	157	394	26	6	973	8	121	15	—	—	2	1	28	6	57	3M	—
Heston and Isleworth (Borough) ...	60	142	39	4	835	3	55	—	—	—	1	—	19	7	—	—	—
Hornsey (Borough) ...	168	227	13	1	542	6	49	5	—	—	—	1	22	13	2	—	—
Potters Bar ...	11	58	3	—	51	—	9	—	—	—	—	—	4	—	—	—	—
Ruislip-Northwood ...	45	250	10	2	652	—	80	2	—	—	—	2	19	3	1	—	—
Southall (Borough) ...	89	72	3	1	334	8	55	91	—	—	—	—	9	14	4	—	—
Southgate (Borough) ...	102	208	7	—	392	2	46	—	—	—	—	1	14	3	13	—	—
Staines ...	45	27	3	—	171	2	10	1	—	—	—	—	3	2	1	—	—
Sunbury ...	31	51	2	—	97	—	—	—	—	—	—	—	—	1	—	1Me	—
Tottenham (Borough) ...	272	286	17	—	1,227	23	77	11	—	2	1	—	40	18	9	3F	—
Twickenham (Borough) ...	60	228	13	5	607	3	60	—	—	—	—	—	14	2	6	—	—
Uxbridge ...	97	94	4	2	516	—	47	2	—	1	—	—	25	3	2	—	—
Wembley (Borough) ...	205	530	26	1	1,305	5	123	7	—	—	1	—	29	3	1	—	—
Willesden (Borough) ...	260	571	33	4	1,434	12	248	3	—	—	—	—	52	8	1	—	—
Wood Green (Borough) ...	46	171	2	—	410	10	35	1	—	—	—	—	9	—	2	—	—
Viewsley and West Drayton ...	15	93	5	—	236	—	28	2	—	—	—	—	2	2	1	—	1F
Totals ...	2,729	5,448	367	37	16,011	129	1,524	185	—	5	15	7	457	128	509	143	10M 44F 1Me

M = Malaria. F = Food Poisoning. Me = Meningitis.

Infectious Diseases.

SCARLET FEVER.—In the past twenty years this disease has become progressively milder, and the incidence rate and case-mortality rate for 1947 are the lowest on record for Middlesex.

DYSENTERY.—As in the case of scarlet fever, the number of cases notified has shown an annual decrease since the termination of hostilities. The figure for 1947 represents a drop of nearly 50 per cent. by comparison with the previous year, and would have been considerably smaller, but for an outbreak which occurred at St. Bernard's (L.C.C.) Mental Hospital at Southall during the Spring, and was responsible for 91 cases, or approximately one-half of the year's total for the County. Dysentery is a disease which spreads more readily among patients in mental institutions. The epidemic was soon under control, and there was no spread outside the hospital.

This lowered incidence may be due to a higher standard of cleanliness in the handling of food at public restaurants.

ENTERIC FEVER.—An outbreak of typhoid fever occurred during September and October in a Harrow home for Continental refugee children under the age of five years. The source of the typhoid organisms was considered to be the mother of one of the children, who was alleged to have arrived in England from Germany the day before her child was admitted to the nursery. In all, 16 children and 4 adults were admitted to the isolation hospital but of these only a limited number were positive cases. The home was closed, those children there who had not been admitted to hospital and whose stools were clear being allowed to proceed to other places.

CEREBRO-SPINAL FEVER.—Of the 128 notifications received during 1947, 88 were recorded during the first six months of the year; 53 during the first quarter.

ACUTE POLIOMYELITIS AND ACUTE POLIOENCEPHALITIS.—The summer of 1947 was one of the hottest and driest on record and was notable for an unusually severe outbreak of acute poliomyelitis (infantile paralysis) which was pandemic throughout the country. 4,992 civilian cases occurred throughout England and Wales during the third quarter, and of this total 235 were notified in Middlesex. The epidemic gradually subsided during the fourth quarter, the figures for England and Wales being 1,894 and Middlesex 113.

In all, 404 cases of acute poliomyelitis and of the allied disease, acute polioencephalitis occurred in the County during the year, easily constituting a record incidence since the diseases first became compulsorily notifiable, *i.e.*, in the case of acute poliomyelitis from 1st September, 1912, and in that of acute polioencephalitis from 1st January, 1919. The number of deaths (31), equivalent to a case-mortality rate of nearly 8 per cent., indicates the severity of this disease.

AGE DISTRIBUTION OF NOTIFIED CASES AND OF DEATHS, ACUTE POLIOMYELITIS AND POLIOENCEPHALITIS, 1947.

Number of Cases.	0—	1—	5—	15—	25—	Totals.
First Quarter	—	—	1	5	1	7
Second Quarter	—	3	6	2	2	13
Third Quarter	8	64	107	44	36	259
Fourth Quarter	5	25	45	25	25	125
Totals	13	92	159	76	64	404
Number of Deaths	—	3	13	15		31

MEASLES.—The biennial fluctuation in incidence, which is characteristic of measles, is again in evidence. Nearly 6,000 more cases occurred during 1947 than in 1946, the respective case-rates per 1,000 population being 7·12 and 4·65. Nevertheless, the number of deaths (25), representing a death rate of only 0·01 per 1,000 persons, suggests that in the last decade there has been a noticeable decline in the severity of the disease and is a happy reflection of the recent considerable improvements in the treatment of secondary infections.

WHOOPING COUGH.—The number of notifications received (5,548) was nearly 30 per cent. higher than in the previous year. Of the 37 fatal cases, 35 were children under five years of age.

MALARIA.—Only 10 cases occurred, compared with 48 cases in 1946, and all were believed to have been contracted abroad. The high figures in recent years were the result of service in tropical countries of men in the Armed Forces.

Infectious Diseases.

DIPHTHERIA.—The benefits accruing from the protection afforded by immunisation since the opening of the campaign on a national basis by the Ministry of Health towards the end of 1940 are strikingly illustrated in the following table, culminating in the remarkably low figures of 1947 :—

Year.	Cases notified.	Fatal cases.	Case-rate per 1,000 population.	Death-rate per 1,000 population.	Number of individuals aged 15 and under known to be immunised up to the end of the year.
1938	2,149	79	1.04	0.04	—
1939	1,279	59	0.62	0.03	—
1940	929	42	0.48	0.02	—
1941*	980	59	0.52	0.03	—
1942	769	53	0.40	0.03	193,796
1943	618	24	0.32	0.01	243,626
1944	266	14	0.14	0.01	267,154
1945	331	19	0.17	0.01	298,480
1946	350	13	0.16	0.006	290,808
1947	129	3	0.06	0.001	294,446

* Period of 53 weeks.

With only three deaths in a population of nearly two and a quarter millions, it is reasonable to forecast the entire eradication of this disease when a higher proportion of the child population of Middlesex is immunised.

OTHER INFECTIOUS DISEASES.—There are no material changes to record as compared with 1946. No cases of smallpox, cholera, plague, typhus, relapsing fever or anthrax occurred.

Infectious Diseases.

DIPHTHERIA IMMUNISATION.—The following table shows estimates of the numbers of children in each of the age groups 0–5 years and 5–15 years who were believed to have been protected by immunisation against diphtheria at 31st December, 1947, and the percentages so protected of the total population at risk in each district and in the County, based on estimates of the population as at 30th June, 1947, furnished by the Registrar-General.

In regard to the older age group, it should be appreciated that the figures given do not show the numbers of children who have received reinforcement injections, as is desirable, at or soon after attaining the age of five years and therefore the percentages given do not indicate the percentages of children enjoying *maximum* protection, which would be considerably lower. In the absence of reinforcement injections, there is probably little more protection against infection by diphtheria in later childhood than in the case of unimmunised children, although there is good reason to believe that immunisation in infancy alone does give some measure of protection against a severe attack possibly throughout life.

ESTIMATED NUMBER OF MID-1947 CHILD POPULATION WHO HAD BEEN IMMUNISED AGAINST
DIPHTHERIA UP TO 31ST DECEMBER, 1947.

Boroughs and Urban Districts.	0–5 years.		5–15 years.	
	Total number protected to date.	Percentage of protected population in this age group.	Total number protected to date.	Percentage of protected population in this age group.
Acton (<i>Borough</i>)	2,835	52·69	4,999	71·00
Brentford and Chiswick (<i>Borough</i>) ...	1,950	41·31	2,256	35·47
Ealing (<i>Borough</i>)	8,502	56·98	18,480	81·41
Edmonton (<i>Borough</i>)	4,208	47·92	9,548	65·66
Enfield	4,674	47·25	11,158	73·74
Feltham	1,574	43·00	5,644	79·15
Finchley (<i>Borough</i>)	2,870	54·35	5,232	66·99
Friern Barnet	909	43·91	1,542	47·15
Harrow	9,042	53·72	18,561	63·58
Hayes and Harlington	3,102	51·87	6,641	63·98
Hendon (<i>Borough</i>)	6,343	55·83	12,602	68·52
Heston and Isleworth (<i>Borough</i>) ...	3,866	49·62	10,480	75·94
Hornsey (<i>Borough</i>)	4,795	59·76	9,512	90·00
Potters Bar	865	60·91	2,047	94·33
Ruislip-Northwood	2,428	40·39	5,062	58·05
Southall (<i>Borough</i>)	2,343	53·12	5,293	70·85
Southgate (<i>Borough</i>)	2,454	47·19	5,229	71·92
Staines	1,279	37·95	4,656	80·00
Sunbury	1,297	65·17	1,020	31·19
Tottenham (<i>Borough</i>)	5,349	49·99	10,612	66·53
Twickenham (<i>Borough</i>)	4,628	54·63	10,082	76·84
Uxbridge	1,842	41·02	6,677	87·16
Wembley (<i>Borough</i>)	6,109	53·44	9,728	63·41
Willesden (<i>Borough</i>)	9,004	59·60	15,523	74·52
Wood Green (<i>Borough</i>)	2,169	51·89	4,646	80·52
Yiewsley and West Drayton	938	55·50	1,841	64·82
The County	95,375	52·07	199,071	70·75

As before, the County Council's assistant medical officers continued to assist medical officers of health by conducting immunisation sessions in schools and clinics.

Infectious Diseases.

NUMBER OF CHILDREN IMMUNISED IN 1947.

District.	Age 0-5.	Age 5-15.	Total.
<i>Boroughs.</i>			
Acton	754	160	914
Brentford and Chiswick	573	320	893
Ealing	2,497	273	2,770
Edmonton	1,366	132	1,498
Finchley	881	103	984
Hendon	2,196	216	2,412
Heston and Isleworth	980	154	1,134
Hornsey... ..	2,512	181	2,693
Southall	662	40	702
Southgate	835	102	937
Tottenham	1,805	124	1,929
Twickenham	1,516	161	1,677
Wembley	1,641	116	1,757
Willesden	1,808	156	1,964
Wood Green	811	115	926
<i>Urban Districts.</i>			
Enfield	1,494	87	1,581
Feltham	605	311	916
Friern Barnet	271	37	308
Harrow	2,487	175	2,662
Hayes and Harlington	1,040	156	1,196
Potters Bar	213	26	239
Ruislip—Northwood	782	79	861
Staines	530	156	686
Sunbury-on-Thames	249	79	328
Uxbridge	603	54	657
Yiewsley and West Drayton	269	54	323
The County	29,380	3,567	32,947

PUBLIC VACCINATION.

The results of the operation of the Vaccination Acts in Middlesex may be summarised as follows:—

	1942.	1943.	1944.	1945.	1946.
Births registered	28,238*	29,417*	28,733*	27,349*	36,303*
Infants successfully vaccinated	13,105	13,786	13,522	13,280	18,285
Infants insusceptible to vaccination	182	150	101	80	188
Infants who had had smallpox	—	—	—	1	—
Statutory declarations of conscientious objection	7,775	8,033	6,706	6,453	7,808
Infants died unvaccinated	1,029	1,014	920	852	934
Vaccination postponed by medical certificates	259	361	332	255	283
Removals to other districts	2,636	2,761	3,614	3,727	4,417
Removals to places unknown, &c.	1,587	1,588	1,487	1,259	1,897
Otherwise unaccounted for	1,665	1,724	2,051	1,442	2,491

* This figure does not include re-registered births or cases of children born in other districts.

Of 36,303 infants whose births were registered in Middlesex during 1946, 934 died unvaccinated. Of the remainder, 18,285 (51·7 per cent.) were successfully vaccinated, or were certified to be insusceptible to vaccination. Statutory declarations of conscientious objection were made in respect of 7,808 (22·1 per cent.), whilst 9,088 infants were not vaccinated for various other reasons (postponement on medical certificate, removal, &c.).

TUBERCULOSIS.

The County tuberculosis service continued during the year under review to increase both in structure and in function. At the end of 1947, it could truly be said that the Middlesex tuberculosis service was one of the most complete of its kind in any county in the British Isles.

More facilities were provided for patients at clinics and at sanatoria and a second Mass X-Ray unit began to assemble its equipment and staff. Staff shortages seriously affected the number of beds available at sanatoria and also their "turnover" of patients.

A small institution of 30 beds for chronic pulmonary male cases was opened in July at the White House, Milford-on-Sea, Hampshire.

Two full-time handicraft instructors were employed during the year to hold weekly diversional therapy classes at each of the nine chest clinics and to visit bedfast patients in their own homes. This attractive and useful way of beguiling the enforced leisure of patients is much appreciated and enjoyed by them.

In May, the small rehabilitation wood workshop situated above the chest clinic at Fore Street, Edmonton, became recognised by the Ministry of Labour under the terms of Section 15 of the Disabled Persons (Employment) Act, 1944, and the twelve men undergoing training there received weekly financial grants from the Ministry. Those men who completed satisfactorily their period of training (three to six months) were thereafter retained at the workshop as County Council employees receiving the trade union rate of pay for a full forty-four hour week irrespective of the actual number of hours they worked. The latter was decided each month after review by the Tuberculosis Officer and varied from twenty to thirty in a five-day week. We have here therefore the birth of a "sheltered" workshop in the fullest sense and when the new premises planned at Tottenham are completed the workshop there will accommodate twice as many men and be a model hygienic place of employment for severely disabled tuberculous men. The co-operation of the Chief Supplies Officer, Mr. A. Beck, in placing orders at the workshop for jobs suitable to the physique and the technical attainments of these men, has been a cardinal feature in the success of the scheme.

It is impossible to say whether or not the incidence of tuberculosis is really rising among the population, for the increase in the numbers of patients on the clinic and County registers is not unlikely to be a reflection of better diagnostic facilities and technique rather than of spread of infection. This suggestion is supported by the continuous steady fall in the mortality rate from the disease among the population.

The steady depletion of available sanatorium beds made necessary a more intense and widespread nursing of patients in their own homes with special treatment such as pneumothorax and pneumoperitoneum provided there by visits from the Chest Clinic physicians. This was very successful but inevitably increased the burdens and activities of the medical nursing and welfare staffs of the clinics as well as those of District Nurses, Home Helps and other workers engaged in the various welfare services set out in detail in the tables which follow. A clear indication of the seriousness of tuberculosis among persons of the age group 15-45 years becomes manifest when it is observed that in Middlesex in 1947 of the 22,440 deaths from all causes *at all ages*, 962 (*i.e.*, 4.2 per cent.) were caused by tuberculosis, but of the 1,873 deaths from all causes *in the age group 15-45 years*, 512 (*i.e.*, 27.3 per cent.) were attributable to tuberculosis. Rather more than half of all the tuberculosis deaths during the year occurred among persons aged 15-45 years. This therefore is the age group to which special attention must be directed in preventing, searching for and combatting the disease.

MASS RADIOGRAPHY.

I am indebted to Dr. W. Pointon Dick, Medical Officer in charge of Unit No. 1 for the following information relating to the working of the Mass Radiography service.

During 1947, 37,538 persons were examined at fifteen centres, of which nine were factory premises. Other accommodation included a school, an empty fire-station, territorial army huts and the Palace of Art at Wembley. The problem of finding space in factories and elsewhere for the Unit to work has become increasingly difficult. There are firms on the waiting list who have not yet been surveyed owing to their lack of suitable accommodation for the Unit to operate.

The Unit paid a special visit outside the County boundary to the Slough Trading Estate at the request of the County Medical Officer for Buckinghamshire. A very extensive fortnight's work was carried out there, 3,734 miniature films being taken in eight days. The examinees came from sixty-nine different factories and a great many more could have been X-rayed if the visit had been longer. In order to limit those X-rayed to the time of life when tuberculosis attacks most often it was necessary to confine volunteers for examination to the age group 15-35.

Sessions were held for the general public at five sites and 7,173 persons attended. At Southgate, where the Unit's visit was a feature of the Borough Council's Civic Week, a broadcast of the Unit at work was made in the B.B.C. European Service.

Routine fluorography of school-leavers was developed during the year. A tuberculin jelly skin test was carried out as part of the examination and showed approximately two-thirds of secondary modern school leavers to be tuberculin negative.

In addition, a special survey of pupils and staff at a County Technical College was undertaken because three cases at one of the Chest Clinics had been found to be pupils from that school. All but one of the 330 boys at the school were examined and only one master failed to volunteer. All the forms he had been teaching proved to be free from tuberculosis. Three further and quite unsuspected cases were found. This survey showed the great importance of a thorough examination of the whole population of any school where any case of phthisis has been recently diagnosed. As the result of this, it is now the practice for the Mass Radiography Service to be notified of any such case when arrangements are put in hand to survey the whole school.

The volunteer response has dropped since mass radiography was first launched and in 1947 it averaged 58 per cent. The enthusiasm for a new scheme and the general awakening of the public to their social responsibilities which existed during the war years appears to be fading. Employers are faced with great difficulties in sparing their employees from the production line and seem not always able to take the long view in recognising the value of regular chest X-rays, a failing which the workers too are liable to share. Nevertheless people are interested but they want more information about the purpose of the scheme and about tuberculosis in general. In this direction, the Mass X-ray Units have a special opportunity for disseminating health propaganda.

Summary of work done in 1947.

Total number of adults X-rayed during year	...	...	...	...	36,382
Number of those definitely found to be tuberculous	...	...	...	...	423
				(Treatment, 62 ; Observation, 361)	
Number of those having other lung lesions	...	...	...	...	53
Number having heart lesions	...	...	...	...	103
Number having undefined lesions requiring further investigation	...	...	...	...	7
Number of school leavers X-rayed during the year	...	...	...	...	1,156
Number found to be tuberculous	...	...	...	...	7
				(Treatment, 2 ; Observation, 5)	
Number of those found to have other intra-thoracic lesions	...	...	...	...	0

CHEST CLINICS.

Area No.	Clinic.	District Served.	Tuberculosis Medical Officers.	Clinic Address.
1	Edmonton...	Edmonton, Enfield ...	Dr. J. Vernon Davies ...	279, Fore Street, Edmonton.
2	Finchley ...	Finchley, Friern Barnet, Hornsey, Southgate	Dr. B. Butterworth ...	980/982, High Road, Whetstone, N.20.
2A	Clare Hall San.	Potters Bar ...	Dr. F. A. H. Simmonds	Clare Hall County Hospital.
3	Willesden ...	Wembley, Willesden ...	Dr. C. H. C. Toussaint	Pound Lane, Willesden.
4	Ealing ...	Acton, Ealing ...	Dr. J. V. Hurford ...	Green Man Passage, Uxbridge Road, West Ealing.
5	Hounslow ...	Brentford and Chiswick, Feltham, Heston and Isleworth, Staines, Sunbury, Twickenham	Dr. R. Heller ...	28, Bell Road, Hounslow.
6	Uxbridge ...	Hayes and Harlington, Ruislip — Northwood, Southall, Uxbridge, Yiewsley and West Drayton	Dr. J. T. N. Roe ...	Local County Offices, 259, High Street, Uxbridge.
7	Tottenham	Tottenham, Wood Green	Dr. T. A. C. McQuiston	140, West Green Road, Tottenham.
8	Redhill ...	Hendon ...	Dr. N. Macdonald ...	Redhill Hospital Chest Clinic, Edgware.
9	Harrow ...	Harrow ...	Dr. J. H. Trenchard ...	53, Greenhill Crescent, Harrow.

TABLE I.

Chest Clinic Records (as reported to the Ministry of Health, December, 1947).

Clinic	Edmonton, 214,680.		Finchley, 287,600.		Willesden, 310,950.		Ealing, 251,860.		Hounslow, 370,760.		Uxbridge, 256,300.		Tottenham, 181,430.		Redhill, 158,670.		Harrow, 215,930.		The County, 2,248,180.		Grand Total.
	Pulm.	Non- pulm.	Pulm.	Non- pulm.	Pulm.	Non- pulm.	Pulm.	Non- pulm.	Pulm.	Non- pulm.	Pulm.	Non- pulm.	Pulm.	Non- pulm.	Pulm.	Non- pulm.	Pulm.	Non- pulm.	Pulm.	Non- pulm.	
Number of tuberculous cases on clinic register at end of 1946 ...	921	161	1,417	200	1,416	153	1,618	251	1,899	270	1,404	251	903	114	1,421	181	788	91	11,787	1,672	13,459
Number of new cases diagnosed during the year ...	234	27	292	27	331	22	342	37	404	28	275	38	253	28	242	29	241	23	2,614	259	2,873
Number of cases written off during the year as :—																					
(a) Recovered ...	32	13	59	17	30	13	26	11	59	22	32	25	23	5	25	3	10	1	296	110	406
(b) Died ...	77	3	76	1	112	3	77	5	140	1	76	5	75	3	75	4	53	1	761	26	787
(c) Lost sight of or refused to attend, &c. ...	12	3	47	18	57	5	65	11	36	49	9	—	35	12	174	43	11	2	446	143	589
Number of tuberculous cases on the clinic register at the end of 1947 ...	1,042	167	1,535	194	1,572	152	1,767	260	2,064	235	1,548	259	1,018	132	1,372	159	987	116	12,905	1,674	14,579

TABLE II.
Summary of Work of Tuberculosis Officers, 1947.

Clinics	Ealing.	Redhill.	Uxbridge.	Finchley.	Edmonton.	Tottenham.	Harrow.	Willesden.	Hounslow.	Total.
1. Total number of persons (all kinds) seen for first time during year	3,156	2,008	1,603	1,961	1,766	1,286	1,748	3,177	3,258	19,963
2. Number out of (1) found to be tuberculous	379	271	313	338	261	333	264	353	432	2,944
3. Contacts of known new cases examined	909	664	833	599	1,053	1,757	828	996	986	8,625
4. Number of those in (3) found to be tuberculous	36	6	11	16	41	8	18	19	34	189
5. Consultations during year at :—										
(a) Clinic	17,389	7,878	13,047	9,580	7,766	7,123	7,077	} 13,379 {	11,027	93,580
(b) Home	277	153	2,190	598	116	158	433		447	5,058
6. Number of pneumothorax attendances at clinic	6,539	6,169	6,127	2,952	1,669	2,998	4,879	5,308	11,735	48,376
7. Number of X-Ray films taken at clinic	10,725	5,467	7,835	5,381	4,837	4,534	3,717	8,851	10,505	61,852
8. Home visits by tuberculosis visitors	3,695	4,175	3,966	4,912	3,351	3,584	2,167	1,988	6,530	34,368

TABLE III.
Summary of Work of Chest Clinic Welfare Officers, 1947.

Clinics	Ealing.	Redhill.	Uxbridge.	Finchley.	Edmonton.	Tottenham.	Harrow.	Willesden.	Hounslow.	Total.
1. New cases investigated	462	543	512	339	345	557	392	483	1,414	5,047
2. Government monetary allowances recommended for the first time	170	147	144	124	187	179	105	183	191	1,430
3. Extra nourishment grants to new patients and dependants	104	152	115	124	186	211	104	55	167	1,218
4. Clothing grants to new patients and dependants	12	91	91	41	70	94	23	21	59	502
5. Bedding grants to new patients and dependants	15	44	35	47	61	48	35	18	78	381
6. Home Helps provided for the first time	40	41	48	50	79	67	56	86	119	586
7. Children boarded out for the first time	11	25	14	16	25	22	15	43	13	184

Tuberculosis.

TABLE IV.

PULMONARY TUBERCULOSIS, 1907-1947.

Year.	County population.	No. of known pulmonary tuberculosis cases.	Incidence rate per 1,000 population.	No. of deaths from pulmonary tuberculosis.	Mortality rate—deaths per 1,000 total population.	Case mortality—deaths per 1,000 known cases.
1907 ...	1,056,700	*	*	888	0.84	*
1908 ...	1,090,708	*	*	899	0.82	*
1909 ...	1,120,573	*	*	876	0.78	*
1910 ...	1,097,402	*	*	794	0.72	*
1911 ...	1,131,861	*	*	853	0.75	*
1912 ...	1,163,851	*	*	896	0.76	*
1913 ...	1,206,051	*	*	917	0.76	*
1914 ...	1,235,065	*	*	957	0.77	*
1915 ...	1,184,250	*	*	1,060	0.89	*
1916 ...	1,169,806	*	*	1,203	1.03	*
1917 ...	1,149,726	*	*	1,216	1.05	*
1918 ...	1,148,569	*	*	1,386	1.21	*
1919 ...	1,177,774	*	*	1,013	0.86	*
1920 ...	1,277,990	*	*	974	0.76	*
1921 ...	1,258,340	*	*	944	0.75	*
1922 ...	1,265,871	*	*	948	0.75	*
1923 ...	1,274,848	*	*	916	0.72	*
1924 ...	1,289,320	*	*	986	0.76	*
1925 ...	1,302,950	6,211	4.77	922	0.71	148
1926 ...	1,325,260	6,631	5.00	944	0.71	142
1927 ...	1,352,040	6,784	5.02	1,024	0.76	151
1928 ...	1,416,600	6,878	4.86	909	0.64	132
1929 ...	1,458,810	6,877	4.71	1,058	0.73	154
1930 ...	1,560,120	6,926	4.44	981	0.63	142
1931 ...	1,639,300	6,840	4.17	989	0.60	145
1932 ...	1,702,530	6,908	4.06	965	0.57	140
1933 ...	1,756,820	7,108	4.05	1,046	0.60	147
1934 ...	1,810,200	7,217	3.99	1,086	0.60	150
1935 ...	1,866,800	7,324	3.92	1,028	0.55	140
1936 ...	1,940,400	7,425	3.83	1,096	0.56	148
1937 ...	2,014,500	7,985	3.96	1,008	0.50	126
1938 ...	2,058,300	8,546	4.15	932	0.45	109
1939 ...	2,056,100	8,845	4.30	1,012	0.49	120
1940 ...	1,952,100	9,067	4.64	1,055	0.54	116
1941 ...	1,874,900	9,618	5.13	1,154	0.61	120
1942 ...	1,929,900	10,684	5.54	1,040	0.54	97
1943 ...	1,938,000	11,788	6.08	1,042	0.54	88
1944 ...	1,902,500	12,676	6.66	920	0.48	73
1945 ...	1,958,000	10,993	5.61	900	0.46	82
1946 ...	2,178,010	12,222	5.61	894	0.41	73
1947 ...	2,248,180	12,905	5.74	855	0.38	66

* No information available before the Public Health (Tuberculosis) Regulations, 1924, came into operation.

Tuberculosis.

TABLE V.

Accommodation for Tuberculosis Cases in the County on 31st December, 1947.

Institution.	Adults.		Children.	Type of case.	Total beds for tuberculosis.	No. of these closed on account of staff shortages.
	M.	F.				
Harefield County Hospital	194	176	66	Pulmonary : Sanatorium ...	454	111
	4	4	10	Observation ...	—	—
Clare Hall County Hospital	282	216	34	Sanatorium ...	560	153
	14	14	—	Hospital ...	—	—
Danesbury Manor, Welwyn	—	55	—	Convalescent ...	55	—
Grim's Dyke, Harrow Weald	50	—	—	„ ...	50	—
White House, Milford	30	—	—	Chronic ...	30	—
Ashford County Hospital...	28	28	—	In the charge of tuberculosis officer	56	—
Central Middlesex County Hospital	28	30	—	„ „	58	—
Chase Farm Hospital ...	17	17	—	„ „	34	—
North Middlesex County Hospital	8	8	—	„ „	16	—
Redhill County Hospital ...	34	36	—	„ „	70	20
West Middlesex County Hospital	45	43	—	„ „	88	25

Tuberculosis

TABLE VI.

Tuberculosis (All Forms) Admitted to Institutions, 1947.

<i>Sanatoria.</i>							Admitted.	Discharged or died.	Beds occupied, 31.12.47.	
Clare Hall—										
Men	...	...	...	...	...	276	246	174		
Women	...	...	...	...	...	368	382	174		
Children	...	...	...	...	...	31	29	14		
Total							675	657	362	
Harefield Hospital										
Men	...	...	...	...	...	325	317	133		
Women	...	...	...	...	...	337	322	144		
Children	...	...	...	...	...	79	79	43		
Total							741	718	320	
To Tuberculosis beds in County General Hospitals							N.A.	N.A.	345	29
<i>Convalescent Homes.</i>										
*White House—Men	...	...	...	...	...	34	5	28		
Danesbury—Women	...	...	...	...	...	272	252	47		
Grims Dyke—Men	...	...	...	...	...	132	132	47		
Total							438	389	122	
<i>Out-County Institutions.</i>										
Men	...	...	...	...	...	N.A.	N.A.	123	46	
Women	...	...	...	...	...	N.A.	N.A.	83	50	
Children	...	...	...	...	...	N.A.	N.A.	17	66	
Total							549	N.A.	223	162

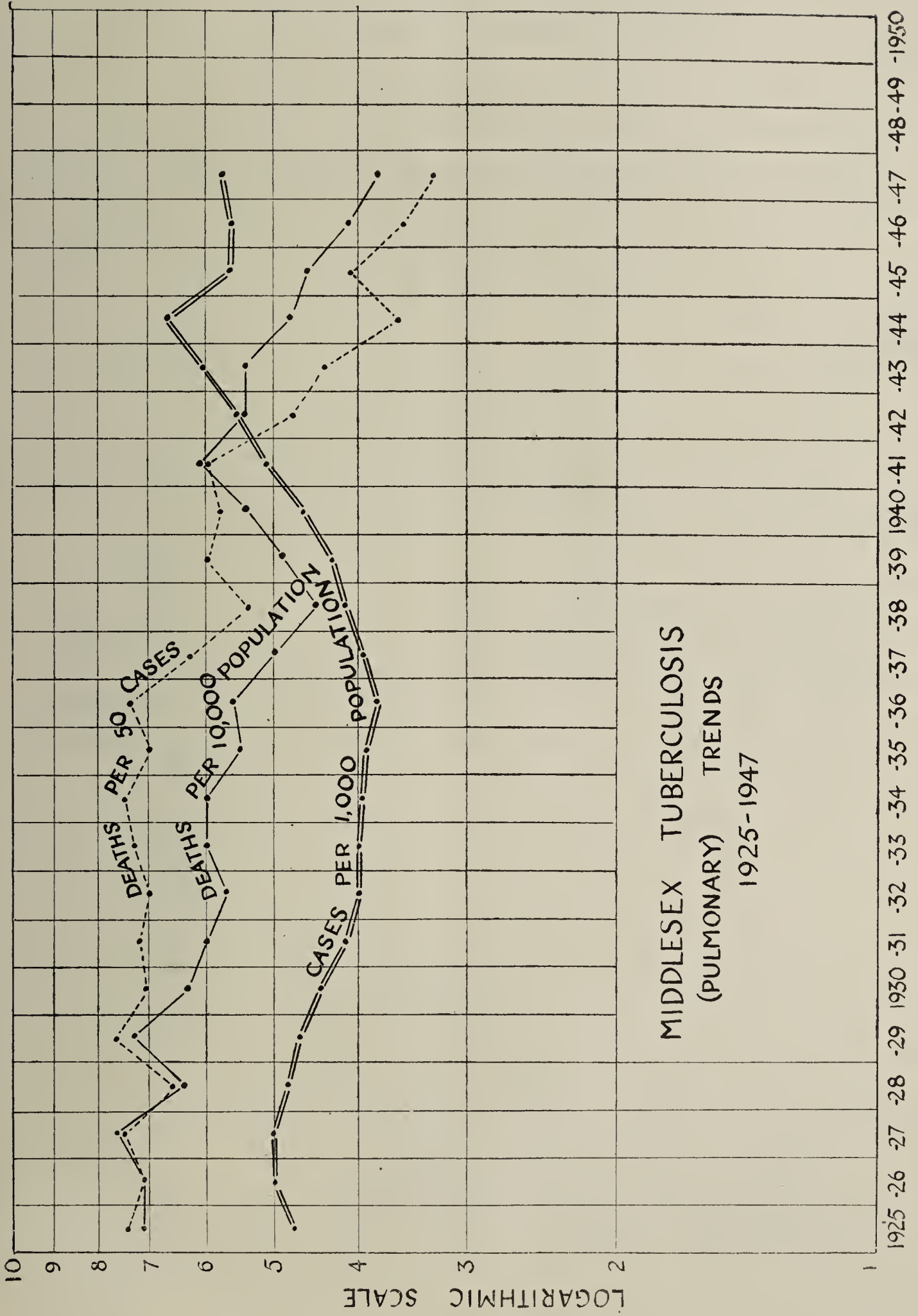
N.A.—Figures not available.

* Opened 8th August, 1947.

Waiting list from all Chest Clinics for admission to any type of hospital or home at 31st December, 1947 :—

875 pulmonary + 27 non-pulmonary = 902 total.

Tuberculosis



Tuberculosis.

I am indebted to the Medical Directors of Clare Hall and Harefield County Hospitals for the following notes on the year's work at these hospitals.

CLARE HALL COUNTY HOSPITAL, SOUTH MIMMS.

(Dr. F. A. H. Simmonds, Medical Director.)

A.—Middlesex County Patients.(1) *Patients admitted, discharged or died.**

	In hospital, 31.12.46.	Admitted.	Discharged.	Died.	In hospital, 31.12.47.
Males	143	276	241	5	174
Females	186	368 + 3*	377	5	174
Children—					
For treatment	15	31	28 + 3*	1	14
For observation	—	—	—	—	—
Totals	344	675	646	11	362

* *Note.*—This table includes 3 female children transferred from the children's ward to the adult female wards, also 70 patients not classified on discharge and 2 patients not suffering from tuberculosis. 218 patients were transferred to Danesbury.

Average number of beds available	362
Average number of occupied beds	358
Average length of stay of patients discharged	193·6 days.
Average length of stay of patients dead	172·2 days.
Average proportion of bed-patients (<i>i.e.</i> , in bed for two meals or more) (Average for year)	86 per cent.

(2) The number of patients admitted from Chest Clinic Areas during the year are shown below :—

Area 1	132
" 2	88
" 2 C.H.	19
" 3	99
" 4	30
" 5	103
" 6	7
" 7	106
" 8	58
" 9	33
	675

(3) The total number of patients discharged during the year was 646 : of these :—

(a) Diagnosis of tuberculosis confirmed (adults)	551
(b) Diagnosis of tuberculosis confirmed (children)	23
(c) Diagnosis of tuberculosis not confirmed (adults)	2
(d) Diagnosis of tuberculosis not confirmed (children)	—
* (e) Not classified on discharge	70
	646

* The patients are reported as "not classified" when they have had a very short stay of a few days only, or when they have been temporarily discharged with a view to early re-admission, *i.e.*, adhesion section, phrenic nerve operations, applications of plaster and pregnancy delivery, &c.

Seventy "Tuberculous Discharged Soldiers" (men and women), *i.e.*, persons receiving a pension for tuberculosis attributed to War Service, were treated during the year.

Thirty-six "Awaiting Service Discharge" patients were treated during 1947.

Tuberculosis

B—North Middlesex County Hospital Patients.

	In hospital, 31.12.46.	Admitted.	Discharged.	Died.	In hospital, 31.12.47.
Male	25	62	61	13	13
Female	28	52	56	10	14
Total	53	114	117	23	27

(Note.—27 male and 36 female patients were transferred to the sanatorium side of the hospital during the years. Three female patients were transferred to Danesbury Manor, 1 male patient to Grims Dyke and 1 male patient to Eversfield.)

26 beds from the North Middlesex Block were transferred to the sanatorium side.

The Tables Nos. 4 to 9 below refer to tuberculous patients only.

(4) Age Grouping.

	Males.	Females.	Total.
0-4 years	8	2	10
5-9 ,,	6	2	8
10-14 ,,	1	5	6
15-24 ,,	77	126	203
25-34 ,,	73	102	175
35-44 ,,	63	41	104
45-54 ,,	11	10	21
55 years and over	—	1	1
Total	239	289	528

(5) Duration of Stay.

	Discharged.			Died.			Total.
	Males.	Females.	Children.	Males.	Females.	Children.	
One month or less	2	6	2	1	—	—	11
One to three months	24	23	4	—	1	—	52
Three to six months	68	86	7	1	3	—	165
Six to twelve months	78	108	5	1	1	—	193
Twelve to eighteen months	34	44	1	2	—	—	81
Over eighteen months	14	10	2	—	—	—	26
	220	277	21	5	5	—	528
Total (males, females and children)		518			10		528

Tuberculosis

(6) Analysis of results of treatment (according to classification on admission).

Stage of Disease.	Quiescent.	Improved.	No improvement.	Died.	Total.	Per cent. Total.
Class T.B. Minus. Cases in which bacilli have never been found in the sputum—						
Males	27	3	1	—	31	
Females	39	5	1	—	45	
	66	8	2	—	76	14.4
Class T.B. Plus, Group 1. Sputum positive cases with slight constitutional disturbance—						
Males	12	4	2	—	18	
Females	25	2	1	—	28	
	37	6	3	—	46	8.7
Class T.B. Plus, Group 2. Sputum positive cases not falling within Groups 1 and 3—						
Males	58	32	41	2	133	
Females	79	49	34	4	166	
	137	81	75	6	299	56.6
Class T.B. Plus, Group 3. Sputum positive cases with little or no prospect of recovery—						
Males	4	22	27	3	56	
Females	6	16	28	1	51	
	10	38	55	4	107	20.3
Total	250 (47.4%)	133 (25.2%)	135 (25.6%)	10 (1.8%)	528	100
		518		10	528	

(7) Children.

Treatment.	Quiescent.	Improved.	I.S.Q.	Worse.	Died.	Total.
Primary infection, pulmonary ...	11	1	—	—	—	12
Cervical glands	—	2	—	—	—	2
Tuberculosis of bones and joints ...	1	—	—	—	—	1
Pleural effusion	—	—	—	—	—	—
Pulmonary tuberculosis	5	1	—	—	—	6
Total	17	4	—	—	—	21
Number T.B. positive on admission					4	
Number T.B. positive on discharge					2	
Number T.B. negative on discharge					19	

Tuberculosis(8) *Sputum Conversion.*

One method of estimating the value of the forms of treatment employed is the analysis of the numbers of those whose sputum contained tubercle bacilli on admission, and who were discharged with "negative" sputum, *i.e.*, with expectoration in which tubercle bacilli could no longer be demonstrated, or without sputum. In classifying a patient as negative, stringent tests are employed; at least three negative sputum smear tests are required, or absence of sputum for six weeks, and in most cases, either gastric lavage or laryngeal swab examination has also been employed and proved negative.

The number of patients discharged alive, in whom a diagnosis of tuberculosis has been proved, was 518; of these 148 had no tubercle bacilli discovered at any time in Clare Hall and the remaining 365 were "positive" on admission.

	Male.	Female.	Children.	Total.
(a) T.B. negative on admission } T.B. negative on discharge }	55	77	16	148
(b) T.B. positive on admission } T.B. positive on discharge }	160	201	4	365
(c) T.B. positive on admission } T.B. negative on discharge }	56	95	3	154
(d) T.B. negative on admission } T.B. positive on discharge }	3	1	1	5

The sputum conversion ratio is therefore $\frac{154}{365} = 42.2$ per cent.

The total number of patients discharged with negative sputum was 302, and that number is 58.3 per cent. of all patients discharged alive.

(9) The following table shows the trend of some figures of recent years, the number of refills is given as an index of the increase of the active work of the hospital:—

(AP = Artificial pneumothorax. PP = Pneumoperitoneum.)

Year.	Admissions.	Discharges.	Deaths.	Discharged Quiescent.	Refill Operations.
1936	412	273	135	6 (2.2%)	None
1937	396	283	100	66 (23.3%)	1,687 (AP)
1938	390	295	69	108 (36.6%)	3,799 "
1939	351	319	43	95 (29.7%)	4,761 "
1940	471	334	35	124 (37.1%)	6,766 "
1941	521	436	43	202 (42.1%)	11,278 "
1942	586	448	26	205 (44.7%)	11,650 "
1943	838	718	51	287 (40.1%)	13,929 "
1944	677	655	23	336 (53.4%)	1,795 (PP)
1945	509	577	21	360 (61.1%)	16,912 (AP)
1946	604	603	14	312 (53.5%)	6,784 (PP)
1947	675	647	10	250 (47.4%)	16,995 (AP)
					7,012 (PP)
					18,392 (AP)
					6,600 (PP)
					15,851 (AP)
					4,794 (PP)

(10) *Dental Treatment.*

No. of patients treated.	No. of patients inspected first time.	Total extractions.	(a) Under gas or general anaesthetic.	(b) Under local anaesthetic.	Fillings.	Other treatment.	No. of dentures completed.
1,584	248	354	113	241	396	517	65

Tuberculosis

Mr. M. Anson resigned his post as dental surgeon to the Hospital in April, and from that month Mr. J. F. Pilbeam attended on Tuesdays (all day) and Miss I. M. Halsall on Thursday afternoons. The arrangement whereby members of the County Council's whole-time dental staff now attend this hospital is a return to the policy which was in operation up to 8th January, 1938, when the work was delegated to appointed private practitioners attending on a part-time basis.

The new clinic is well appointed and is much appreciated by patients. The surgery has good, modern equipment.

The dental service seems to be popular with the patients and there is no difficulty in obtaining their consent to complete treatment including all necessary conservative measures. Extractions were dealt with under local anaesthesia and when patients were certified as fit for gas by the medical officers, general anaesthetics were given. A number of patients were referred for X-ray investigation.

Every patient examined needed some treatment, which emphasises the importance of full and complete facilities for dental care. Most of the young patients showed excellent conservative treatment carried out by the School Dental Service but as there is no dental scheme for adolescents much of the good work done in the School Dental Service was wasted. The dental condition of ex-service men and women was generally good; many exhibited excellent fillings inserted in their service days, and the patients showed much interest in oral hygiene. The older patients had considerable dental disease, and for this section extraction of teeth and provision of dentures was all that could be done.

Approximately 50 per cent. of patients in the hospital were inspected and a similar percentage actually treated. For every 100 patients treated about 140 extractions, 160 fillings, 210 other operations were carried out, and 26 dentures inserted.

(11) X-Ray Department.

The number of X-ray films taken were as follows:—

In-patients	...	...	...	...	...	...	...	...	4,697
Out-patients—									
Out-patients	...	...	...	...	...	...	...	...	1,884
Doctors' letters from general practitioners	...	...	...	...	...	...	...	...	63
Staff	...	...	...	...	...	...	...	...	976
									<hr/> 2,923
Total patients X-rayed	...	...	...	...	...	...	...	...	<hr/>7,520
General cases other than chests	...	...	...	...	...	...	...	...	<hr/>396
Barium examinations	...	...	...	...	...	...	...	...	<hr/>20
Total films used	...	...	...	...	...	...	...	...	<hr/>9,733

The increased use of tomography as an aid to diagnosis reveals the following figures: 1947, 245; 1946, 174. (These figures are included above.)

(12) Physiotherapy Department.

The work carried out in this department included Massage, Electro-therapeutics, Ultra-violet light and Swedish remedial exercises.

Number of patients treated	...	...	...	...	...	...	...	...	3,727
Attendances	...	...	...	...	...	...	...	...	8,099
Treatments	...	...	...	...	...	...	...	...	9,938

*(13) Staff.**Nursing Staff.*

The following successes were gained in Examinations:—

Preliminary State Examination—

Whole examination	...	...	...	...	...	...	...	...	3
Part I	...	...	...	...	...	...	...	...	26
Part II	...	...	...	...	...	...	...	...	12

Tuberculosis Association Certificate—

Part I	...	...	...	...	...	...	...	...	4
Part II	...	...	...	...	...	...	...	...	26

During the year four nurses were transferred to Middlesex County Council General Hospitals for completion of their training.

Twenty nurses were transferred from the North Middlesex County Hospital to Clare Hall for three months tuberculosis nursing experience (plus three for two weeks holiday relief only).

Tuberculosis

HAREFIELD COUNTY HOSPITAL.

(Dr. K. R. Stokes, Medical Director.)

The following table shows the movement of patients during the year :—

Civilian Tuberculosis Beds.

	In hospital on 31.12.46.	Admitted during year.	Discharged during year.	Died.	In hospital on 31.12.47.
<i>Treatment.</i>					
Adults—					
Male	124	269	255	10	128
Female	127	295	264	17	141
Children—					
Male	23	26	27	—	22
Female	16	19	17*	—	18
Total treatment cases ...	290	609	563	27	309
<i>Observation.</i>					
Adults—					
Male	1	56	51	1	5
Female	2	42	41	—	3
Children—					
Male	—	17	17	—	—
Female	4	17	18	—	3
Total observation cases ...	7	132	127	1	11
Grand total	297	741	690	28	320

Average number of beds occupied during the year :—

Treatment	307
Observation	16

* Includes 1 child transferred from the Children's ward to the adult Female Ward.

This table includes 170 patients admitted for short term surgical treatment, *i.e.*, referred from Chest Clinics for adhesion section or other procedures, for which they usually stayed in hospital for a period of one week when they returned either to one of the County Hospitals or to their homes. In a few cases it was necessary to detain the patient here for a longer period.

Tuberculosis

The following table shows the condition of patients discharged after treatment during 1947. This table does not include the 170 short-term surgical cases referred to on page 27.

Stage of disease on admission.	Number discharged.	Condition on Discharge.			
		Quiescent.*	Improved.†	No material improvement.	Died.
		Per cent.	Per cent.	Per cent.	Per cent.
Class T.B. minus, <i>i.e.</i> , cases in which bacilli have never been found in the sputum—					
Males	20	75·0	20·0	—	5·0
Females	23	78·3	17·4	—	4·3
Children	16	37·5	62·5	—	—
Total	59	66·1	30·5	—	3·4
Class T.B. plus, Group I, <i>i.e.</i> , sputum positive cases with slight constitutional disturbance—					
Males	16	68·8	25·0	6·2	—
Females	40	62·5	32·5	5·0	—
Children	18	27·8	66·7	5·5	—
Total	74	55·4	39·2	5·4	—
Class T.B. plus, Group 2, <i>i.e.</i> , sputum positive cases not falling within Groups 1 or 3—					
Males	133	27·1	49·6	18·0	5·3
Females	83	39·8	50·6	7·2	2·4
Children	3	33·3	66·7	—	—
Total	219	32·0	50·2	13·7	4·1
Class T.B. plus, Group 3, <i>i.e.</i> , sputum positive cases with little or no prospect of recovery—					
Males	34	2·9	35·3	55·9	5·9
Females	33	—	27·3	30·3	42·4
Children	—	—	—	—	—
Total	67	1·5	31·3	43·3	23·9

* Quiescent.—Physical signs compatible with a healed lesion. Tubercle bacilli absent from sputum and general health completely restored.

† Improved.—Physical signs diminished and general health very good, but tubercle bacilli may be present in sputum.

Number of cases sputum negative on discharge :—

Class.	Number.	Per cent. of Cases Discharged.
T.B.† Group 1	74	100
T.B.† Group 2	159	72
T.B.† Group 3	30	45

*Tuberculosis**Special Procedures.*

The following operations and procedures were carried out upon patients discharged during the year :—

Artificial pneumothorax—						
Successfully established...	...	...	...	...	...	180*
Abandoned as inefficient	...	...	...	...	...	35†
Unsuccessfully attempted	...	...	...	...	...	20
Pneumoperitoneum	...	...	...	...	...	156‡
Phrenic crush	...	...	...	...	...	374§
Phrenic avulsion	...	...	...	...	...	1
Adhesion section	...	...	...	...	...	267||
Bronchoscopy	...	...	...	...	...	89
Bronchograms	...	...	...	...	...	36
Thoracotomy	...	...	...	...	...	3
Monaldi drainage	...	...	...	...	...	14
Rib Resection	...	...	...	...	...	1
Thoracoplasty	...	...	...	...	(32 cases)	92 stages
Extra pleural pneumothorax	...	...	...	...	...	12
Cavernostomy	...	...	...	...	...	1
Pneumonectomy	...	...	...	...	...	1

(*) Includes 45 commenced before admission.

(†) „ 10 „ „

(‡) „ 45 „ „

(§) „ 13 short term cases and 243 out patients.

(||) „ 141 short term cases.

Observation Ward.

The following table shows the results of the investigations carried out on the 132 patients admitted to the Observation Ward during the year :—

Diagnosed as suffering from tuberculosis	...	...	...	...	...	49
Known cases of pulmonary tuberculosis admitted for assessment only	...	...	...	...	...	11
						—
Total tuberculous cases	...	...	...	...	...	60
						—
Ill-health due to other causes	...	...	...	...	...	62
						—
No evidence of disease	...	...	...	...	...	10
						—

Military Tuberculosis Unit.

During 1947, the Military Tuberculosis Unit, which was opened in 1946 for the treatment of tuberculous serving soldiers, became fully established.

The Unit was staffed by nursing sisters from the Q.A.I.M.N.S. and nursing and general orderlies from the R.A.M.C. Medical services were provided by members of the hospital medical staff.

The unit was the responsibility of the hospital administration, who had the assistance of a military registrar.

The unit replaced general medical and surgical wards, and the consequent change in the nature of the work undertaken at the hospital led immediately to the closing down of the general training school for nurses at Harefield. This resulted in an increased shortage of nurses for the civilian tuberculosis wards and increased the strain on the civilian nursing staff. However, the nursing services were maintained under great pressure and during the year the average number of tuberculosis beds occupied at Harefield was as follows :—

Civilian treatment wards	...	...	...	...	...	307
Civilian observation ward	...	...	...	...	...	16
Military tuberculosis unit	...	...	...	...	...	115
						—
Total	...	...	...	...	...	438
						—

This is an increase of 60 beds on the pre-war figure of 378, and stands out in contrast to the reduction of beds in tuberculosis hospitals throughout the country.

*Tuberculosis**Thoracic Surgical Unit.*

During 1947 the Thoracic Surgical Unit (E.M.S.) for the surgical treatment of non-tuberculous diseases of the chest functioned efficiently. The average number of beds occupied during the year was 68.

The following major surgical operations were carried out :—

Lobectomy	37
Pneumonectomy	31
Drainage of lung abscess	2
Drainage of empyema	26
Removal of dermoid cyst	1
Removal of lung cyst	1
Decortication of lung	2
Removal of foreign body from chest	1
Oesophagectomy	8
Cardioplasty	3
Vagotomy	7
Transthoracic gastrectomy	1
Drainage of sub-phrenic abscess	2
Removal of mediastinal tumour	1
Pericardectomy	3
Ligature of patent ductus arteriosus	3
Blalocks operation	1
Thoracoplasty	stages 17

Chronic Sick.

During 1947, an average of 33 beds in the hospital were occupied by female chronic sick patients.

Total average number of beds occupied in the hospital during the year :—

Civilian tuberculosis beds	323
Military tuberculosis beds	115
Thoracic surgical beds	68
Chronic sick beds	33
	—
Total	539
	—

VENEREAL DISEASES.

The arrangements for the follow up of contacts named under Defence Regulation 33B were continued in 1947. During the year 33 notifications were received relating to 30 contacts, 28 were first notifications, four were named more than once during the year and one had been notified in previous years. In the case of first notifications, 22 of the persons concerned were traced, three had transferred to other areas and three were not found. Those named more than once attended as required.

Notifications were less than half those of previous years. Civilian clinics have rarely notified contacts so that with demobilisation it has been obvious that the method of notifying contacts under Regulation 33B would be used far less than hitherto. It is therefore particularly important for vigilance to be shown in encouraging patients to bring their contacts to the clinic. Where the patient does not wish to approach the contact but is willing for the contact to be interviewed the almoner can endeavour to get the person named to a clinic for examination.

Apart from the follow up of contacts the special services almoners have attended the special clinics and dealt with the difficulties of patients attending. They also have visited when letters have been without effect, those patients who do not complete treatment. The most frequent woman defaulter is the mother of a congenital syphilitic baby or child. There is rarely difficulty before the baby arrives but subsequently the mother often fails to continue treatment. Even when the practical difficulties which may arise are solved, such as fares and occasionally transport, the main reason, the fear of causing pain to the child, remains and much encouragement is often required to get the mother to bring the child until he can be safely discharged. The male defaulter is often one who puts complete faith in the absence of symptoms and in the rapid curative powers of penicillin. 475 visits to patients were made during the year.

Diagnosis and Treatment.—The centres available to Middlesex patients for the diagnosis and treatment of venereal disease during 1947 were the four clinics established by the County Council at Central Middlesex, Hillingdon, West Middlesex and Ashford County Hospitals, the clinic financially maintained by the County Council at the Prince of Wales Hospital, Tottenham, within the County and elsewhere the clinics associated with those hospitals participating in the London and Home Counties joint scheme for the treatment of venereal disease. The clinic at Ashford County Hospital was opened on 1st August, 1946.

Below is a comparative statement of the Middlesex patients treated at clinics in Middlesex and London hospitals during the past five years, while the table on page 33 gives details of the total work of the individual clinics in Middlesex during the years 1943–47 inclusive.

	Middlesex Patients treated at									
	Hospitals in Middlesex.					Hospitals in London.				
	1943.	1944.	1945.	1946.	1947.	1943.	1944.	1945.	1946.	1947.
Number of persons dealt with at the clinics for the first time and found to be suffering from :—										
Syphilis	325	242	265	414	395	214	160	191	291	287
Soft chancre	1	1	—	1	4	6	2	2	2	3
Gonorrhœa	262	296	368	400	340	348	287	393	716	498
Conditions other than venereal	1,542	1,241	1,455	1,994	2,150	2,186	1,854	2,244	2,865	2,147
Totals	2,130	1,780	2,088	2,809	2,889	2,754	2,303	2,830	3,874	2,935
Total attendances	33,893	27,536	31,006	43,425	48,102	44,160	36,489	35,150	38,255	32,793
Number of "in-patient" days of treatment ...	*44	*384	616	534	480	1,137	960	920	901	1,058

* Prince of Wales Hospital, Tottenham, only. Figures shown for this hospital include only residents of the County, the costs being borne by the Middlesex County Council under the agreement with the hospital.

It will be observed from the above table that the total number of patients dealt with at hospitals in Middlesex and London during 1947 amounted to 5,824, or nearly 13 per cent. below the aggregate for the previous year. Of these, 4,297 cases were found to be due to conditions other than venereal, as compared with 4,859 cases of this type in 1946, a decrease of 562.

Venereal Disease

Previous reports have indicated a rapid increase in the incidence of venereal disease since the termination of the war. No doubt this increase was largely the effect of the relief of tension which accompanied the cessation of hostilities, resulting in a certain relaxation in the generally accepted moral standards and it is to be hoped that the decrease in the number of cases experienced in 1947 will continue in the ensuing years.

Venereal Disease Propaganda and Sex Education.

The County Council makes an annual contribution to the funds of the Central Council for Health Education, on the basis of five shillings per thousand of the population, in consideration of that Council's work in the education of the public regarding the dangers of venereal diseases and in the dissemination of information concerning sexual hygiene. One-sixth of the total contribution is credited to the County Council against the cost of providing talks and lectures and the supply of literature.

As in previous years, the work carried out in Middlesex during 1947 by the Central Council for Health Education consisted mainly of courses of lectures on sex education to young people and talks to parents of school children and to various women's groups, while health films were shown to the staff of certain large industrial firms.

MIDDLESEX AND OUT-COUNTY CASES TREATED AT MIDDLESEX CLINICS.

	Central Middlesex County Hospital.				Hillingdon County Hospital.				West Middlesex County Hospital.				Prince of Wales General Hospital, Tottenham.				Ashford County Hospital.*					
	1943.	1944.	1945.	1946.	1947.	1943.	1944.	1945.	1946.	1947.	1943.	1944.	1945.	1946.	1947.	1946.	1947.					
	Number of persons dealt with at the clinics for the first time and found to be suffering from :—																					
Syphilis	132	118	135	166	133	29	40	47	62	65	79	52	53	128	92	100	82	75	181	110	17	19
Soft chancre	—	1	—	1	3	—	—	—	—	—	—	—	—	—	—	2	—	—	2	1	—	—
Gonorrhoea	110	102	145	143	97	52	72	84	116	58	41	77	86	113	76	83	74	127	235	136	9	5
Conditions other than venereal...	570	496	609	826	742	250	310	305	429	369	346	306	358	516	462	496	488	602	899	703	29	41
Totals	812	717	889	1,136	975	331	422	436	607	492	466	435	497	757	630	681	644	804	1,317	950	55	65
Total attendances...	14,686	14,967	14,590	16,229	15,471	4,624	4,904	7,413	11,042	9,878	4,909	4,313	6,910	12,163	10,619	11,465	8,194	6,696	12,584	11,753	510	2,453

* Clinic opened August, 1946

HEALTH CONTROL OF AIRPORTS.

In the early part of January, 1947, a request was received from the Minister of Health for the County Council to undertake in accordance with Sub-Section II of Section 39 of the Civil Aviation Act the administration of the Health Control Services at the London Airport and Northolt Aerodrome. The County Council agreed to this request and arrangements were made to take charge of the services as from the 1st July, 1947.

The medical and other staff employed by the Minister were transferred to the County Council's staff and Dr. L. H. Thomas was designated as Senior Medical Officer in charge of the Health Control Services at both airports.

Purpose of Health Control at Airports.

The main object of the Health Control Unit is to detect cases of infectious disease and to take all necessary steps to prevent the spread of infection. This work is governed by the Public Health (Aircraft) Regulations made by the Minister of Health.

The broad purposes underlying the work of Health Control for air traffic are the same as those in the more familiar sphere of ocean travel, but there is one important difference in detail which should be noted. Persons arriving in this country by sea (with the exception of those coming by one of the short sea routes) have, during their journey usually passed the incubation periods of all the five diseases specifically mentioned in the International Sanitary Convention (*i.e.*, Plague, Cholera, Typhus Fever, Smallpox and Yellow Fever); they have also passed the incubation periods of many other communicable tropical and sub-tropical diseases whose introduction into this country it is important to prevent. Persons arriving by air, on the other hand, are usually within the incubation period of most of these diseases; moreover there is the complication that neither the service used by the passenger nor the last place of landing of the aircraft necessarily gives the clue to where he has been within those periods.

Other duties of Health Control Units.

In addition to the main duties set out above the medical staff of the Health Control Units also carry out the duties of medical inspection of aliens under the Aliens Order, 1920, and the supervision of the disinsectisation of planes and the issue of appropriate certificates as required by the Indian Government for planes proceeding to that country.

General Procedure.

On arrival at the airport the Captain of the aircraft must complete the form of "Aircraft Declaration of Health" (Health Control Form No. 1), which is handed to the airport medical officer. The form gives detailed information as to the aerodromes at which the aircraft alighted during the voyage and the date of departure from each, the number of passengers, an account of any illness which has occurred during the voyage, etc. If this form is satisfactory the passengers are allowed to disembark and proceed direct to the waiting room of the Health Control Unit, access to which is restricted to passengers and essential airport officials. The passengers each complete the "Personal Declaration of Origin and Health" (Health Control Form No. 2), which gives details regarding the passenger, the address to which he is proceeding and his permanent address together with the town, locality or airport where he spent each of the 14 nights prior to arrival in this country, together with a statement regarding possession of certificates of inoculation or vaccination against Yellow Fever, Cholera, Smallpox and Typhus and a declaration as to any illness within the previous 14 days. These forms are taken by the passengers to the counter of the Health Control Unit and are examined by the Clerk-receptionist who also scrutinizes each passenger. Any passenger who appears ill, who says that he is or has been recently ill, or who has arrived from or passed through an area, where in the opinion of the medical officer he may have been exposed to risk of epidemic disease is referred to the medical officer for such examination as is considered necessary. The Health Control Units are kept informed by the Minister of Health of outbreaks of disease in various parts of the world and these are carefully recorded on maps kept at the Health Control Unit for this purpose. The entries on the Health Control Form 2 are verified by questioning, etc., as far as practicable and if the passenger cannot give an address to which he is proceeding he is issued with a franked post-card to enable him to notify the Health Control Unit as soon as he is able to supply an address. The Health Control Forms No. 2 are retained at the Health Control Unit for a period of 2-3 months.

A Yellow "Warning Card" is given to every passenger and its purpose and method of use explained to the passengers by the Clerk-receptionist. This card states the date of arrival and the name of the airport, and the passenger is advised to hand it to a doctor if he falls ill during the first 21 days after arrival. This then enables the doctor, should such an illness be infectious, to contact the Medical Officer of Health who can communicate with the airport medical officer, in order that the contacts who travelled on the plane may be traced, through the information on the Health Control Forms No. 2.

Health Control of Airports

Work carried out in 1947.

Set out below are tables showing details of the work carried out at London Airport and Northolt Airport during the year 1947.

LONDON AIRPORT

	Jan. 1st, 1947, to June 30th, 1947.	July 1st, 1947, to Dec. 31st, 1947.	TOTAL.
No. of planes arriving :—			
(i) 8 a.m. to 8 p.m.	2,528	4,551	7,079
(ii) 8 p.m. to 8 a.m.	656	1,135	1,791
(iii) Total	3,184	5,686	8,870
Nationality of passengers arriving : —			
British	22,899	46,006	68,905
Aliens	18,592	32,925	51,517
Total	41,491	78,931	120,422
No of passengers arriving :—			
(i) 8 a.m. to 8 p.m.	34,524	64,617	99,141
(ii) 8 p.m. to 8 a.m.	6,967	14,314	21,281
(iii) Total	41,491	78,931	120,422
No. of planes issued with Disinsectisation Certificates	234	347	581
*No. of Passengers arriving sick and treated			838
No. of aliens inspected under aliens order...			102
No. of aliens refused entry on medical certificate			2
No. of notifications sent to Medical Officers of Health for surveillance of passengers			290

* Includes one case of chicken pox sent to Uxbridge Isolation Hospital and one death of passenger at Airport

Place of departure of planes arriving at Heathrow.	Jan. 1st—July 5th. Number of		July 6th—Dec. 31st. Number of		Total Number of	
	Aircraft.	Passengers.	Aircraft.	Passengers.	Aircraft.	Passengers.
From Far East or Persia ...	265	3,408	393	3,265	658	6,673
From Middle East or Sth. Africa	519	5,892	577	5,337	1,096	11,229
From S. America, Sth. Atlan- tic or West Africa ...	282	3,297	371	3,737	653	7,034
From Nth. Atlantic or Nth. America	687	12,519	1,447	20,735	2,134	33,254
From Continent	1,579	18,578	2,750	43,654	4,329	62,232
Total ...	3,332	43,694	5,538	76,728	8,870	120,422

NORTHOLT AIRPORT.

	Jan. 1st, 1947, to June 30th, 1947.	July 1st, 1947, to Dec. 31st, 1947.	TOTAL
Total No. of planes arriving... ..	3,267	3,950	7,217
No. of passengers arriving :—			
British	26,146	39,784	65,930
Alien	17,077	25,994	43,071
Total	43,223	65,778	109,001
No. of passengers arriving sick and treated			92
No. of aliens inspected under aliens order...			1,434
No. of aliens refused entry on medical certificate			Nil
No. of notifications sent to Medical Officers of Health for surveillance of passengers			8

From an examination of the above tables it will be noted that at the London Airport, planes arrive during the night as well as the day, but at Northolt Aerodrome no planes arrive after approximately 10 p.m. In view of this it is necessary to arrange for the Health Control Unit to be manned for the whole of the 24 hours at the London Airport. When the County Council took over responsibility for this work from the Ministry of Health the only staff on duty at night was the Medical Officer. As only just over two medical officers were available for the whole of the work at London Airport it was necessary for them to be on duty for the whole of the 24 hours.

It will also be noted from the tables that there was a considerable increase in the number of planes and passengers dealt with during the second half of the year. This increase had been anticipated and at its meeting in July the County Council agreed to ask the Minister of Health to appoint additional staff. Subsequently approval was received for the appointment of two additional receptionists and the duty rotas are now arranged so that there is a receptionist on duty at night in addition to the medical officer. The total staff employed at the present time for both airports is five whole time medical officers and thirteen receptionists, eight of these at Heathrow and five at Northolt. In addition one R.A.F. personnel is still allocated to the Health Control Unit at Northolt.

I set out below some notes supplied by Dr. Thomas regarding three cases of special interest occurring during the year.

(a) A case of chicken pox in a passenger arriving from West Africa.

In this instance the passenger had fallen sick and developed a rash during the voyage. He, however, continued his journey; a message from the plane was received saying there was a case believed to be chicken pox but possibly small pox on board. Plane was met and patient seen by Dr. Bullen and Dr. Thomas. It was diagnosed as chicken pox, and patient was admitted to Uxbridge Infectious Disease Hospital, where diagnosis was confirmed. This shows clearly the necessity of readily available diagnosis at the Airport.

(b) A case of small pox which developed a rash eleven days after arriving at Heathrow from India. This case gave rise to the serious Bilstone epidemic in March, 1947. An account of the outbreak is given by Dr. C. Simpson Smith, Medical Officer, Staffordshire County Council, in the *British Medical Journal* of January 24th, 1948. It is of particular interest as showing some causes of failure in the present system. It is understood that the Warning Card given at the Airport was shown by the patient to the local practitioner and that the Health Authorities consulted specialist opinion which definitely diagnosed the case as chicken pox. Precautions therefore were not taken until the second and third cases were recognised as small pox on March 8th, one week after the onset of the first case. The failure in diagnosis was due to modified rash and symptoms due to vaccination.

It was not till April 3rd that the Ministry of Health informed the County Council and obtained names and addresses of contacts of first case on the plane that arrived from India. No cases developed in any of these contacts as patient was then not yet infective.

(c) A case arriving on 15th July, 1947, from Switzerland and Brussels developed poliomyelitis 3 days after arriving at Heathrow. The County Council was informed by the Local Sanitary Authority for the district to which the patient had proceeded and names and addresses of contacts were forwarded to the Ministry of Health. This case is of interest as showing that the Warning Cards are used.

MATERNITY AND CHILD WELFARE.

ADMINISTRATION OF MIDWIVES ACTS, 1902-1936.

AREA.—Throughout 1947 the County Council was the Local Supervising Authority for the whole of the County, with the exception of the Boroughs of Ealing, Edmonton, Hendon, Heston and Isleworth, Tottenham, Twickenham and Willesden, and the urban districts of Enfield and Harrow.

DOMICILIARY SERVICE OF MIDWIVES.—The number of confinements attended by the domiciliary midwives engaged in carrying out the Council's scheme was higher by 689 than in 1946, as increasing difficulties in providing hospital accommodation and nursing staff led to a greater number of home confinements during 1947.

The following table sets out particulars of the number of whole-time salaried midwives engaged in the various parts of the Council's area, whether employed by the County Council or by local welfare councils on their behalf, or by voluntary associations subsidised by the County Council, together with information as to the number of confinements attended in the capacity of either midwife or maternity nurse.

Borough or District.	Midwives employed by.	Number of whole-time salaried midwives at end of year.	Confinements attended.
Acton	} Queen Charlotte's Hospital	4	747
Brentford and Chiswick			
Feltham	County Council	6	365
Finchley	Borough Council	4	270
Friern Barnet	County Council	2	118
Hayes and Harlington	" "	10	530
Hornsey	Borough Council	6	514
Potters Bar	County Council	2	109
Ruislip-Northwood	" "	5	349
Southall	Borough Council	5	314
Southgate	Southgate Queen's Nursing Association	3	264
Staines—			
Ashford	Ashford District Nursing Association	2	117
Laleham and Staines	Staines and Laleham Nurse Society	2	114
Stanwell	Stanwell District Nursing Association	2	119
Sunbury—			
Shepperton	County Council	2	86
	Shepperton and Littleton District Nursing Association	1	76
Uxbridge	County Council	4	367
Wembley	Kingsbury District Nursing Association	3	203
"	Wembley District Nursing Association	4	446
Wood Green	Borough Council	4	374
Yiewsley and West Drayton	County Council	3	162
	Totals	74	5,644

HOSPITAL SAVINGS ASSOCIATION SCHEME.—This scheme has been continued throughout the year 1947 without any change.

BIRTHS ATTENDED BY MIDWIVES.—Of the total number of midwives residing in the area of Middlesex supervised by the County Council, who notified their intention to practise, returns were received from 121 who had actually practised in 1947, setting out the number of cases attended by them in the capacity of midwife or maternity nurse. Medical officers of health of boroughs

and urban districts in the County, which also are local supervising authorities, have been good enough to supply me with similar information relating to their respective districts, so that it has been possible to compile the following comprehensive table referring to the entire administrative county.

Boroughs and Urban Districts.	Births attended by midwives.		Births at which midwives acted as nurses.		
	In patients' homes.	In nursing homes.	In patients' homes.	In nursing homes.	
Acton	} 714	—	35	—	
Brentford and Chiswick		—	—	—	
Feltham		341	—	24	—
Finchley		231	39	39	44
Friern Barnet		127	—	55	—
Hayes and Harlington		570	—	36	48
Hornsey		463	—	51	175
Potters Bar		88	—	21	—
Ruislip-Northwood		334	27	111	197
Southall		364	163	53	105
Southgate		160	—	108	717
Staines		221	—	129	—
Sunbury		143	—	19	—
Uxbridge		311	—	97	—
Wembley		437	100	212	7
Wood Green		338	—	124	—
Yiewsley and West Drayton ..	149	—	13	—	
<i>Attended by midwives residing outside the County Council's area ...</i>	46	—	13	—	
Totals	5,037	329	1,140	1,293	
<i>Ealing</i>	746	185	135	723	
<i>Edmonton</i>	887	—	140	—	
<i>Enfield</i>	902	214	241	42	
<i>Harrow</i>	889	58	321	452	
<i>Hendon</i>	581	—	177	10	
<i>Heston and Isleworth</i>	437	—	62	219	
<i>Tottenham</i>	1,410	—	131	—	
<i>Twickenham</i>	375	639	148	565	
<i>Willesden</i>	936	—	210	36	
Grand Totals	12,200	1,425	2,705	3,340	

The total number of births in the whole County in 1947 was 43,955, and 13,625 (31 per cent.) of these were attended by midwives, whilst 6,045 (16 per cent.) were attended by practising midwives in the capacity of maternity nurses.

NOTIFICATIONS.—The numbers of notifications received from midwives, in accordance with the Rules of the Central Midwives Board, during the years 1943–47, were as follows:—

Notifications of:—	1943.	1944.	1945.	1946.	1947.
Sending for medical assistance	1,508	1,588	1,302	1,834	1,901
Still-birth	73	59	35	52	63
Death of infant	35	33	26	30	25
Death of mother	1	—	—	—	2
Laying out the dead	15	16	18	27	30
Artificial feeding	67	72	85	60	101
Liability to be a source of infection ...	143	121	86	101	99
Totals	1,842	1,889	1,552	2,104	2,221

MATERNAL DEATHS.—Two deaths occurred of women attended by a midwife.

The maternal death-rate for all births in the administrative County during 1947 was 1.09 per 1,000, a reduction on the previous year when the figure was 1.38.

PUERPERAL PYREXIA.—The following table records the number of notifications of puerperal pyrexia (a) in the county generally, and (b) in the area for which the County Council is the local supervising authority, together with details concerning midwives' cases in the latter area.

Year.	Births registered.		Cases notified.		Deaths from puerperal sepsis.		Births attended by midwives.	Cases notified in the practices of midwives.	Deaths from puerperal sepsis in the practices of midwives.
	(a)	(b)	(a)	(b)	(a)	(b)			
1940	29,517	12,573	361	75	18	11	4,924	21	1
1941	26,927	11,719	408	104	23	8	4,320	19	Nil
1942	33,150	14,224	552	177	23	15	4,755	29	Nil
1943	35,339	15,076	639	171	33	16	4,483	26	3
1944	36,380	15,606	541	166	13	7	4,381	10	2
1945	33,398	14,203	491	147	9	3	3,463	7	Nil
1946	42,108	17,824	518	162	13	4	4,535	9	Nil
1947	43,955	18,701	509	163	11	3	5,366	10	Nil

OPHTHALMIA NEONATORUM.—Medical assistance was sought by certified midwives on account of inflammation of, or discharge from, infants' eyes in 156 instances; and in 9 of these cases the medical practitioners called in notified the condition as ophthalmia neonatorum. No apparent injury to vision resulted in any instance.

VISITS OF INSPECTION.—Visits made by the Council's supervisors of midwives may be classified as follows:—

Visits to State certified midwives	588
„ premises in connection with the registration of nursing homes	16
„ registered nursing homes	149
„ ante-natal clinics and welfare centres	100
„ other persons in connection with investigations under the Midwives Acts, &c.	27
„ in connection with home help scheme	39
„ „ „ „ agencies for the supply of nurses	8
Total	927

POST-CERTIFICATE INSTRUCTION.—Arrangements were made for one midwife to receive a course of instruction in the administration of gas and air analgesia. Two courses of post-certificate instruction in midwifery, arranged in conjunction with the London County Council, were held, at which forty-two midwives from the area supervised by the County Council attended. Number of midwives in the County Area qualified to administer gas and air analgesia was then 69. Total number of midwives working for the County Council was 74; this number comprised:—

- 34 in the direct employ of the County Council.
- 19 employed by local Welfare Authorities.
- 21 employed by Voluntary Associations.

Percentage of midwives qualified = 93.2.

PAYMENT OF FEES TO MEDICAL PRACTITIONERS.—The following table gives information regarding fees paid by the County Council to medical practitioners called in by midwives on account of illness or abnormality occurring during pregnancy, labour or puerperium.

A	B		C	D
Number of notifications of sending for medical aid.	Number of claims for fees received.	Percentage of B to A.	Total amount due to doctors in respect of cases attended by them during financial year.	Income from patients in respect of doctors' fees.
			£ s. d.	£ s. d.
1,901	1,190	62.6	1,560 2 0	655 7 0

NURSING HOMES.

The following table shows the number of registered nursing homes in each borough and urban district for which the County Council is the authority for the supervision of nursing homes. The figures in brackets indicate the number of homes devoted, either wholly or in part, to the reception of maternity cases.

Boroughs and Urban Districts.	Number of Nursing Homes on Register at end of year.	Approved accommodation (beds) at end of year.
Acton (<i>Borough</i>)	3 (0)	12
Brentford and Chiswick (<i>Borough</i>)	0 (0)	0
Feltham	0 (0)	0
Finchley (<i>Borough</i>)	13 (3)	118
Friern Barnet	2 (2)	18
Hayes and Harlington	1 (1)	4
Hornsey (<i>Borough</i>)	9 (3)	78
Potters Bar	0 (0)	0
Ruislip-Northwood	7 (6)	35
Southall (<i>Borough</i>)	2 (1)	29
Southgate (<i>Borough</i>)	6 (5)	57
Staines	1 (0)	13
Sunbury	2 (1)	62
Uxbridge	2 (0)	27
Wembley (<i>Borough</i>)	5 (1)	31
Wood Green (<i>Borough</i>)... ..	0 (0)	0
Yiewsley and West Drayton	0 (0)	0
Totals	53 (23)	484

BIRTHS OCCURRING IN NURSING HOMES.—The following table sets out particulars of births which occurred in nursing homes.

Attended by	County Council's Area.	Ealing	Edmonton	Enfield	Harrow	Hendon	Heston & Isleworth	Tottenham	Twickenham	Willesden	Administrative County
(a) Doctors ...	2,267	723	0	42	919	288	219	0	565	36	5,059
(b) State certified midwives, no doctor being in attendance ...	424	185	0	214	58	0	0	0	639	0	1,520
Totals ...	2,691	908	0	256	977	288	219	0	1,204	36	6,579

MATERNITY AND CHILD WELFARE SERVICE.

The County Council is the authority for maternity and child welfare in 9 of the 26 districts included in the administrative County, viz., the Urban Districts of Feltham, Friern Barnet, Hayes and Harlington, Potters Bar, Ruislip-Northwood, Staines, Sunbury, Uxbridge, and Yiewsley and West Drayton.

The following is a summary of certain statistics relating to the maternity and child welfare area of the County Council :—

Area	53,535 acres
Population (estimated by Registrar-General)	344,100
Live births	7,129
Birth-rate	20·7
Number of infant deaths	243
Infantile mortality rate, per 1,000 live births	34·1
Number of maternal deaths	5
Maternal mortality rate, per 1,000 total births	0·69
Number of cases of puerperal pyrexia	58
„ ophthalmia neonatorum	7

During 1947 three additional health visitors and school nurses were appointed in view of the increasing number of births in the Hayes, Feltham and Stanwell areas. The Northwood infant welfare centre and ante-natal clinic were transferred from the Methodist Assembly Hall, Hallowell Road, to the Council's premises at Ryefield Court, Ryefield Crescent, on 8th September, 1947.

HOME VISITS BY HEALTH VISITORS.—The home visiting undertaken by the County Council's health visitors is shown in the following table :—

Pre-natal visits	...	...	...	...	...	4,924
Visits to infants under 1 year	...	...	...	...	...	28,772
Visits to children (1-5 years)	...	...	...	...	...	27,047
Total home visits						60,743
Total number of visits to individual families						54,825

ATTENDANCES AT WELFARE CENTRES.—The following table gives the attendances of women and children at the Council's welfare centres :—

Ante-natal Clinics—

Number of sessions held	...	...	...	...	...	1,514
New cases attending	...	...	...	...	...	4,350
Post-natal cases attending	...	...	...	...	...	562
Total attendances	...	...	...	...	...	25,936

Welfare Centres—

Number of sessions held	...	...	...	...	...	3,579
New cases attending—						
Expectant mothers.	...	...	...	...	...	150
Infants under 1 year of age	...	...	...	...	...	6,081
Children (1 to 5 years)	...	...	...	...	...	1,131

Attendances—

Expectant mothers	...	...	...	...	...	516
Mothers attending with infants	...	...	...	...	...	139,330
Infants	...	...	...	...	...	103,020
Children (1-5 years)	...	...	...	...	...	51,314
Total attendances	...	...	...	...	...	294,180

Average attendance of infants and children each session ... 45

PROVISION OF MILK, &C.—The following table gives the cost of fresh and dried milk, &c., issued at the centres during the financial year 1947-48 :—

Year 1947-1948.	Cost price.	Contributed by mothers.	Charge on scheme.
	£ s. d.	£ s. d.	£ s. d.
Fresh milk	9,699 19 7	8,348 2 5	1,351 17 2
Dried milk			
Cod-liver oil and sundries			

ORTHOPAEDIC SERVICE.—Arrangements are in operation whereby children below the age of five in attendance at the welfare centres can receive treatment at the orthopaedic clinics dealing with school children. 104 children were referred during 1947.

CHILD GUIDANCE SERVICE.—Problem children in need of investigation and treatment by psychiatrists are referred to the child guidance clinics established by the Education Committee at Harrow and Twickenham. Parents, except in necessitous cases, are asked to contribute 5s. for a course of treatment. Nine children were referred for treatment during 1947.

OPHTHALMIC TREATMENT.—The following table gives details relating to cases referred from ante-natal or welfare clinics to school ophthalmic clinics during 1947.

	Mothers.	Children.
Number of cases refracted—		
(a) For the first time	118	127
(b) Retests	4	83
Number of spectacles supplied	60	78
Change of lens supplied	7	9
Number of repairs to spectacles	38	
Number of cases referred to hospital	8	

Maternity and Child Welfare

TREATMENT OF OPHTHALMIA NEONATORUM.—During 1947, seven cases of ophthalmia neonatorum were notified in the area for which the County Council is the authority for maternity and child welfare. One infant was treated at home, three infants were removed to White Oak Hospital, Swanley, Kent, by arrangement with the London County Council, while the remainder were treated in the hospitals in which they had been born. All the infants made satisfactory recoveries.

DENTAL TREATMENT.—In order to encourage expectant and nursing mothers to take advantage of the Council's scheme for dental treatment a nominal fee of 2s. 6d. only is now charged to cover all extractions and fillings required by a mother during her pregnancy and the twelve months following confinement.

The following tables gives particulars of the dental work which has been carried out under the Council's maternity and child welfare scheme :—

(1) MOTHERS

	Expectant Mothers.	Nursing Mothers.	Totals.
Attendances	4,982	3,017	7,999
Examined	1,339	400	1,739
Referred	1,174	361	1,535
Actually treated	1,100	335	1,435
Extractions	2,382	1,102	3,484
Fillings	2,843	1,197	4,040
Local anæsthetics	779	393	1,172
General anæsthetics	369	145	514
Other operations	1,418	859	2,277
Dental dressings	683	986	1,669
Dentures fitted... ..	238	390	628
Treatments completed	582	443	1,025

(2) CHILDREN

	Welfare Children.	Nursery Children.	Totals.
Attendances	2,569	402	2,971
Examined	866	494	1,360
Referred	622	178	800
Actually treated	636	164	800
Extractions	653	46	699
Fillings	1,739	257	1,996
Local anæsthetics	31	—	31
General anæsthetics	274	36	310
Other operations	505	59	564
Treatments completed	713	104	817

The number of births in the County Council's welfare area during the year was 7,129. The number of expectant mothers dentally inspected was 1,339, or approximately 18·8 per cent. of the whole.

The following brief report on the working of the Maternity and Child Welfare dental scheme has been prepared by the County Council's Chief Dental Officer, Mr. J. F. Pilbeam :—

“ In spite of several changes in staff during the year which caused an interruption of the service in some Areas, particularly in Friern Barnet, the work done under this scheme compares favourably with that undertaken in the previous year.

Extension of the service has been planned to take place at Feltham and Yiewsley. At Feltham the need for extra help was most marked and arrangements have been made for the setting up of a second dental surgery at the Cardinal Road Health Centre. The existing clinic at Yiewsley will be transferred to more spacious premises in the High Street when it will be possible to arrange for whole-time service instead of the present part-time clinic in the Central Hall. These extensions should be ready in the early part of 1948.

Maternity and Child Welfare

The percentage of expectant mothers dentally inspected during the year was 18·8 as against 16·2 in 1946. The fact that one expectant mother out of five attended the clinics for dental care is no mean achievement as only about two-elevenths of each dental officer's time could be devoted to this scheme.

The percentage incidence of dental disease for expectant mothers was 88 as against 93 in 1946 and 90 for nursing mothers, which is slightly lower than 93 in the previous year. The majority of those referred for treatment were actually treated. A gratifying feature of the year's work was that the number of fillings inserted (4,040) exceeded the total of extractions (3,484). Of the 1,435 actually treated, 1,025 were completed. The average amount of treatment for each patient was : 2·8 fillings, 2·4 extractions, 1·6 other operations and 0·44 of a denture.

The increase in the number of expectant mothers referred to the dental clinics has been due to the now established rule that mothers examined by the doctors were referred for dental examination on the same day, if possible. In this way the idea of the dental examination forming a part of the general medical examination is inculcated.

Inspection and treatment undertaken for young children exceeded the previous year's totals. In the last few years there has been a considerable diminution in the apathetic attitude of mothers to the care of the baby teeth. It is now not a question of persuading more mothers to have conservative treatment but of providing sufficient opportunities for treatment. The incidence of dental disease in young children was 59 per cent. and all those referred for treatment actually attended for complete treatment."

HOME HELPS.—This scheme has been continued throughout the year 1947.

Further appointments are being made whenever suitable women can be found to undertake the work in the districts in which they are required, and by the end of the year 65 such women were employed by the County Council as whole-time home helps, in addition to six in part-time employment.

An Organiser of Home Helps was appointed on August 1st, 1947, to assist in the administration of the scheme which was developing rapidly.

She resigned on 31st December, 1947, having made a total number of 150 visits to the Home Helps during the five months.

ILLEGITIMATE CHILDREN.—The arrangements with the British Red Cross Society for the admission of unmarried mothers and their babies to a post-natal hostel, and of expectant unmarried mothers who, for various reasons, could not remain in their own homes, or had no homes, to an ante-natal hostel, prior to confinement, were continued during 1947. During the year there were 99 admissions to the ante-natal hostel and 123 to the post-natal hostel.

CHILD LIFE PROTECTION.

The position to the end of 1947 was that there were 142 persons on the Council's register receiving 177 children.

No deaths were reported during the year.

The following visits were paid by the Council's child protection visitors :—

First visits	...	...	...	...	...	...	...	...	...	121
Subsequent visits	...	...	...	...	...	...	...	...	...	830
Special investigations	...	...	...	...	...	...	...	...	...	Nil

THE ADOPTION OF CHILDREN (REGULATION) ACT, 1939.

The above Act came into force on 1st June, 1943. In accordance with Section 2, adoption societies are required to apply for registration, and two societies whose offices are situated in the County of Middlesex, have been registered :—

Harrow and Willesden Ruri-Decanal Association for Moral Welfare Work	...	...	...	...	...	...	4, Peterborough Road, Harrow.
Homeless Children Aid and Adoption Society and F. B. Meyer Children's Home	...	...	...	...	...	...	54, Grove Avenue, Muswell Hill.

No new applications for registration were received during 1947.

Section 7 (3) of the Act makes it a duty for persons, other than adoption societies, participating in arrangements for adoption, to give notice in writing of the arrangements to the welfare authority for the area in which the adopter resides. The authority's child protection visitors then supervise any child received by the adopters until legal adoption has taken place or the child attains the age of nine years. 33 persons gave notice in accordance with this Section to the County Council as welfare authority. Legal adoption was completed in 88 instances and at the close of the year proceedings were pending in a further 20.

NURSERIES.

The seventeen day nurseries in operation at the end of 1946 were maintained during 1947. The accommodation provided and average daily attendances are set out in the following table :—

Name of Nursery.	Accommodation.	Average Daily Attendances.
Park Road Day Nursery, Ashford	50	44·13
Bedfont day Nursery	40	40·56
Central Feltham Day Nursery, High Street, Feltham ...	50	44·17
Bear Road Day Nursery, Hanworth	50	36·97
Grange Park Day Nursery, Hayes, Middlesex	80	50·48
Lannock Road Day Nursery, Hayes, Middlesex	50	37·01
Nestle's Avenue Day Nursery, Hayes	50	40·97
Uxbridge Road Day Nursery, Hayes	50	36·95
Oak Farm Day Nursery, Hillingdon	80	51·14
Ruislip Manor Day Nursery	40	28·95
South Ruislip Day Nursery	50	40·77
Shepperton Day Nursery	50	30·29
Staines Day Nursery	40	33·14
St. Anne's Day Nursery, Stanwell	50	43·49
High Street Day Nursery, Uxbridge	50	42·79
Cowley Road Day Nursery, Uxbridge	25	17·21
West Drayton Day Nursery	50	32·07
Total number of attendances	165,718	
Total number of places	855	
Average daily attendances	38·44	

The incidence of infection at the day nurseries during the year was as follows :—scarlet fever, 2 cases ; measles, 160 cases (as against 80 in 1946) ; whooping cough, 114 (as against 87 in 1946) ; chicken pox, 49 cases ; and acute poliomyelitis, 1 case.

As in previous years, no new children were admitted to the nurseries for the appropriate quarantine period after the occurrence of a case of measles, whooping cough or scarlet fever. There were no cases of diphtheria.

The number of days each nursery was closed for new admissions is given below :—

Nursery.	Days Open.	Days Closed for New Admissions.
Park Road Day Nursery, Ashford	254	—
Bedfont Day Nursery	255	7
Central Feltham Day Nursery, Feltham	255	24
Bear Road Day Nursery, Hanworth	256	—
Grange Park Day Nursery, Hayes	255	122
Lannock Road Day Nursery, Hayes	255	60
Nestle's Avenue Day Nursery, Hayes	256	—
Uxbridge Road Day Nursery, Hayes	255	90
Oak Farm Day Nursery, Hillingdon	270	56
Ruislip Manor Day Nursery	251	28
South Ruislip Day Nursery	253	118
Shepperton Day Nursery	254	—
Staines Day Nursery	258	66
St. Anne's Day Nursery, Stanwell	255	68
High Street Day Nursery, Uxbridge	254	67
Cowley Road Day Nursery, Uxbridge	240	17
West Drayton Day Nursery	235	—

RESIDENTIAL ACCOMMODATION.—Bourne House Short Stay Residential Nursery accommodated 137 children during the year.

TRAINING OF NURSERY NURSES.—The training of students was continued and the County Council's certificate was awarded to twelve students who were successful in the county examinations. Eleven obtained the certificate of the National Nursery Examination Board.

MENTAL DEFICIENCY SERVICE.

ADMINISTRATION.—In July, 1946, the County Council decided that the department of the Medical Officer under the Mental Deficiency Acts, which had been independent of the rest of the Public Health Service since its inception in 1914, should be merged in the County Medical Officer's Department as soon as arrangements could be made for its accommodation with that department at its offices in Westminster. This became possible in June, 1947, and from that date the Mental Deficiency service has been operated as an integral and co-ordinated section of the general Public Health service, with the exception of the control and management of Middlesex Colony, Shenley, and Bramley House, Maidenhead, which in view of their impending transfer to the Minister of Health under the National Health Services Act, remained with the Mental Health Committee, which was also responsible for the County Council's mental hospitals.

Dr. H. E. Beasley, the acting Medical Officer under the Mental Deficiency Acts, was transferred to the staff of the County Medical Officer in the capacity of Principal Assistant Medical Officer and has continued to be in immediate charge of the administration of the whole Mental Deficiency service with the exceptions mentioned.

RETURN AS TO NUMBER OF DEFECTIVES.

The following figures show the exact position as on the 1st January, 1948, with regard to numbers of defectives :—

	Males.	Females.	Totals.
1. CASES IN INSTITUTIONS :—			
Under Orders under the Mental Deficiency Acts :—			
Under 16 years	174	78	252
Over 16 years	899	874	1,773
			2,025
2. CASES IN PLACES OF SAFETY :—			
Under 16 years	53	42	95
Over 16 years	9	9	18
			113
3. CASES IN COMMUNITY CARE :—			
(a) Under Guardianship under orders :—			
Under 16 years	23	12	35
Over 16 years	228	246	474
			509
(b) Cases on licence on trial :—			
Under 16 years	6	8	14
Over 16 years	112	119	231
			245
(c) Cases under supervision			
	1,153	1,028	2,181
Totals	2,657	2,416	5,073
4. OTHER CASES ON RECORDS	265	185	450
Grand Totals	2,922	2,601	5,523

All cases on the active registers of the Local Authority are under the constant surveillance of officers of the Mental Deficiency Service. From the time cases are first ascertained until removed from the Registers by death or discharge, or transferred by settlement to another County area, all cases remain under the care of the Service.

ASCERTAINMENT.—During 1947, the names of 279 fresh cases were reported to the Local Authority, and of this total, 46 cases were found to be not subject to be dealt with under the Mental Deficiency Acts by the Local Authority for the following reasons :—

(a) Medical examination showed that they were not cases to be dealt with as mental defectives.

(b) Their settlement was outside Middlesex.

COMMUNITY CARE

These cases can be classified under three headings, Guardianship, Supervision and Licence. The total number of patients under community care at the close of the year was 2,935.

GUARDIANSHIP.—The total number under Orders under Guardianship was 509.

During the year 42 Petitions were presented for Orders for cases to be admitted to Guardianships. Fifteen were transferred between Guardians under Varying Orders under Section 7 (2) of the Act. Eighteen were removed from Guardianship to Certified Institutions under Section 7 (1) of the Act. Twelve were transferred from Institutions to Guardianship under Amendment Act, 1925.

Four patients died during the year.

During the year 78 patients left their certified abode of Guardianship and were given leave of absence to other addresses.

Twelve patients were discharged by authority of the Board of Control.

In accordance with the requirements of the Act and Regulations, 119 Guardianship Detention Orders were reconsidered and Continuation Orders issued by the Board of Control.

SUPERVISION.—Patients are placed under Statutory Supervision in their own homes if the conditions are sufficiently satisfactory to render it unnecessary for them to be certified, and where maintenance allowances are not required. The total number of cases under Supervision as on 1st January, 1948, was 2,181.

LICENCE.—Patients "on trial" from Institutions to care in the community. At the close of 1947 there were 245 cases on licence.

CASES PROVIDED WITH INSTITUTIONAL TREATMENT

On the 1st January, 1948, 2,138 patients were being maintained by the County Council by way of Institutional accommodation. Their distribution was as follows:—

In Institutions provided by the Council:—

Middlesex Colony	1,502
Bramley House	73
In Institutions and homes not provided by the Council...	563
Total	2,138

INSTITUTIONAL ACCOMMODATION.—During 1947, the lack of vacancies for urgent cases requiring institutional accommodation assumed serious proportions and the problems which have been arising are cumulative. Unfortunately, owing to certain delays, the premises which had been acquired at Clarefield Court, Maidenhead, and which would have provided about 50 vacancies, were not yet ready for occupation. The number of cases very urgently requiring accommodation is now in the regions of 250 and is steadily increasing, and the position gives rise to grave concern.

All the defectives on the Registers of Certified Institutions are detained under Orders signed by Justices of the Peace upon presentations of Petitions by Officers of the Service. During 1947 the total number of Petition Presentations to Justices of the Peace was 149.

There were also 45 Varying Orders considered by Justices of the Peace upon application by statutory form. These Varying Orders are obtained to authorise change of Guardian (in Guardianship cases), or by transfer from Institution to Guardianship or vice versa.

Twenty-eight patients were transferred from one Certified Institution to another during the year, 21 being under Transfer Orders of the Board of Control and seven between the Local Authority's own Institutions.

During the year 40 patients were discharged from their Orders from the Registers of Certified Institutions either by the Board of Control or by operation of law.

In the same period there were 31 deaths in Certified Institutions.

In all Institution cases, their Orders are periodically reviewed at specified times in accordance with Statutory regulations and visited by the special visitors appointed under Section 11 of the Act; in all cases up-to-date reports on the home conditions, &c., have to be furnished to these visitors by officers of the Mental Deficiency Service. During 1947 there were 697 such Revision.

PLACE OF SAFETY CASES.—Place of Safety cases are those dealt with in emergency or for special reasons. They are a changing population and are detained pending presentation of Petitions for Orders for their admission to Certified Institutions. During the year 125 cases were sent to Places of Safety, for varying periods of time, of whom 113 were still under detention on 1st January, 1948.

OCCUPATION CENTRES

The Mental Deficiency Act of 1927 imposed a duty on Local Authorities to provide occupation and training for patients living in the community and one of the most useful means of doing this is by the provision of Centres in convenient districts in the County where patients can attend daily.

The County Council has prepared a scheme for the provision of 11 Occupation Centres within the County. An Occupational Centres Organiser was appointed and two Centres were opened in 1947, one at Twickenham and one at Wealdstone. Further premises in other districts have been inspected and it is hoped to open more centres in the near future.

GENERAL HOSPITALS

There were no outstanding developments in the general hospital service during 1947. The many and grave difficulties of the post war period precluded anything in the nature of spectacular advances, and for the most part patients and staff were obliged still to labour under the disadvantageous conditions which resulted from eight years' deferment of maintenance and structural expansion in the Councils hospitals. For it must be remembered that with the exception of the building of hutted extensions to County hospitals as part of the Emergency Hospital Service, very little structural work other than of an extemporised and mostly minor character has taken place since 1939.

During 1947 such progress was made as was possible. The hospitals continued day by day to give to the people of Middlesex the first class service to which they have by now become accustomed. Among the structural improvements which were achieved may be mentioned:—

(a) The adaptation of a ward block at *Chase Farm Hospital* and its opening as a maternity department.

(b) The adaptation of the Southgate Isolation Hospital as a post delivery unit of the *North Middlesex Hospital*.

These two maternity units which came into operation in 1947 went some considerable way towards making good the shortage of maternity hospital accommodation in the densely populated north-east part of Middlesex.

(c) The adaptation at *Redhill County Hospital* of a gas cleansing station to form an excellent extension to the pathological laboratories.

(d) Great improvements were made to the equipment of the pathological department of the *North Middlesex County Hospital*.

STAFF.

The strength of a hospital is the strength of its staff. During the year a great deal of progress was made in building up the medical staffs of the Council's hospitals to conform to the "team" pattern laid down by the County Council in 1946. By the end of 1947 practically all the senior appointments of heads of the teams had been made and most of the corresponding chief assistants had also been appointed. Details of appointments made are as follows:—

NORTH MIDDLESEX COUNTY HOSPITAL.

Physicians: D. Ferriman, B.A., D.M., M.R.C.P.; N. Whittaker, M.A., M.D., M.R.C.P.

Surgeon: B. H. Page, M.A., M.Ch., F.R.C.S.

Obstetrician: A. W. Purdie (substantive), M.B., B.Ch., F.R.F.P.S., M.R.C.O.G.

Anaesthetists: Miss N. I. Faux (substantive), M.B., B.S., D.A.; G. S. A. Knowles, M.B., B.S., D.A.

Chief Assistants (3) in medicine, surgery and obstetrics were appointed.

Mr. T. H. C. Benians, F.R.C.S., for many years pathologist to the hospital, retired, and was appointed Hon. Consulting Pathologist.

REDHILL COUNTY HOSPITAL.

Paediatrician: Miss Margaret Babar, B.Sc., M.D., M.R.C.P., D.C.H.

Obstetrician: Mrs. M. Rose (substantive), M.D., M.R.C.O.G.

Chief Assistants (9) in medicine (2), surgery (2), obstetrics (2), anaesthetics (1), paediatrics (1) and pathology (1) were appointed.

CENTRAL MIDDLESEX COUNTY HOSPITAL.

Physician: R. J. Porter, M.A., M.B., B.Ch., M.R.C.P.

Obstetrician: Miss M. A. M. Bigby, M.D., M.R.C.O.G.

Anaesthetist: A. C. R. Rankin (substantive), M.B., B.Ch., D.A.

Chief Assistants (5), in surgery (2), obstetrics (2) and radiology (1) were appointed.

HILLINGDON COUNTY HOSPITAL.

Physician: C. G. Barnes, M.D., F.R.C.P.

Radiologist: S. A. Maddocks, M.R.C.S., L.R.C.P., D.M.R.E.

Director of Physical Medicine: R. J. Talbot, F.R.C.S., D.Phys.M.

Chief Assistants (5) in Medicine (1), Surgery (2), Thoracic Surgery (1) and Obstetrics (1) were appointed.

Mr. L. Fatti, F.R.C.S., Surgeon to the Hospital, resigned.

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WEST MIDDLESEX COUNTY HOSPITAL.

Physicians : M. M. Deane (substantive), M.B., B.S., M.R.C.P., D.P.M. ; N. F. Coghill, M.A., M.B., B.Chir., M.R.C.P.

Pædiatrician : Miss M. Dynski-Klein, M.D., D.C.H.

Surgeons : J. Scholefield (substantive), M.B., Ch.B., F.R.C.S. ; M. Rassin, M.B., Ch.B., F.R.C.S. (resigned August, 1947).

Obstetricians : C. W. F. Burnett, M.D., M.R.C.O.G. ; D. A. Davies, M.B., B.S., M.R.C.O.G.

Anæsthetist : Miss P. M. Edwards, B.Sc., M.B., B.S., D.A.

Dermatologist : F. Jenner, M.R.C.P.

Chief Assistants (11) in Medicine (3), Surgery (3), Anæsthetics (2), Obstetrics (2) and Pædiatrics (1) were appointed.

ASHFORD COUNTY HOSPITAL.

Medical Director and Surgeon : G. Stephen (substantive), M.B., Ch.B., F.R.C.S.

Surgeon : E. N. Callum, F.R.C.S., D.T.M.

Chief Assistants (3) in Medicine (1), Surgery (1) and Anæsthetics (1) were appointed.

CHASE FARM COUNTY HOSPITAL.

Physician : T. Simpson, M.Sc., M.D., M.R.C.P.

Surgeon.—M. Pembarton, M.B.E., M.B., Ch.B., F.R.C.S.

Obstetrician : R. M. Millan, M.D., M.R.C.O.G.

Anæsthetists : H. F. Patrick (substantive), M.R.C.S., L.R.C.P., D.A. ; C. R. Jenkins, M.R.C.S., L.R.C.P., D.A.

Radiologist : G. Doel, M.R.C.S., L.R.C.P., D.M.R.E.

Chief Assistants (4) in Medicine (1) and Surgery (3) were appointed.

Appointments of Chief Assistants were also made at Harefield County Hospital in Medicine (2) and at Clare Hall County Hospital in Thoracic Surgery (1).

HOSPITAL CATERING.

The standard of feeding of patients and staff in hospitals in this country has given rise to a good deal of criticism during the past few years. Possibly the shortage of many articles of food during the war and the general monotony of diet have accentuated a previous state of affairs which, whilst unsatisfactory, was at least tolerable, and have caused attention to be focussed upon a very important subject. Methods of medical treatment have undergone vast improvement and knowledge of the science of dietetics has made great strides ; it is all the more remarkable therefore that so little progress should have been made in the application of modern catering practice to the feeding of hospital patients, as there can be no reasonable doubt that the presentation of nutritious and palatable meals can greatly contribute to the speed of a patient's recovery from illness. It is a commonplace that in most hospitals the standard of feeding leaves much to be desired, whereas the food service should be regarded as one of the essential remedial services of the hospital.

The Council's hospitals have not been immune from the general criticism. Unsatisfactory feeding in the Council's hospitals is the result of defects of methods and system. The organisation is at fault, in that it was devised decades ago to serve hospitals much smaller in size and far less complex in character than the County hospitals of today. In the larger County hospitals many thousands of meals are prepared and served daily to patients and staff and the volume and character of the catering approximates to that of a very large hotel or restaurant. Catering on this large scale is the work of experts and should be concentrated in the hands of a senior officer thoroughly experienced in the commercial side of catering and of every aspect of the buying, storage, preparation, cooking and serving of food.

In the Council's hospitals there is a division of control. The bulk of the food is bought on contract, though some discretion is given to the steward with regard to local purchase. The steward is responsible for all the food stores of the hospital and from the store he issues to the kitchen the quantities of food required calculated according to menus and diet sheets. He orders the necessary food, checks the quantities received and takes up with the suppliers any complaints regarding quality. He is responsible for maintenance of kitchen plant and selects and buys kitchen equipment. The kitchen and its staff come under the control of the Matron and this control she usually exercises through a housekeeper who is generally a trained nurse. The kitchen staff cook, prepare the food for serving and deliver it to the wards, when the ward sister takes charge and is responsible for the actual placing of the prepared meal before the patient. The matrons of the Council's hospitals would be the first to admit that their training and that of their sister-housekeepers does not adequately fit them for the highly technical and expert duties involved in large-scale feeding. Their duties in this connection are an inheritance from the time when hospitals were small and matrons combined the work of house-keeping with that of supervising the nursing of patients. In the great County hospitals of Middlesex,

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the matron should be a Director of Nursing and she should be relieved of the responsibilities connected with catering. Similarly, with regard to the stewards; all the Council's stewards have some knowledge and experience of checking, inspecting and storing food, but, with the multifarious other duties which they are called upon to do, they would not claim to be experts in this matter.

Dieticians have already been appointed to several of the Council's hospitals. Their work is chiefly in connection with special diets for such conditions as peptic ulcer, renal disease, anæmia and diabetes, but their services might, with advantage, be called upon to a greater extent in connection with the general ward diet and staff diet in order that these may be sufficient, nutritious and well-balanced.

Nevertheless, the first step in improving feeding conditions in the County hospitals is the recognition in each County hospital of the catering administration as a separate department of the work of the hospital and in the charge of a caterer, who should be a man or woman possessed of the high standard of qualifications and experience indicated in this report and answerable, through the Medical Director, to the Hospital Management Committee for everything to do with the feeding of patients and staff. This recommendation is in accordance with the advice given by the Ministry of Health in Circular 44/45. Such an officer need not, and perhaps should not, be a Dietician, but would be rather a business manager of the feeding arrangements, but he or she would, of course, have to work closely with the hospital Dietician, who is the expert on food values, calories, vitamin content, &c.

With these considerations in mind, the County Council introduced an innovation by the appointment of a catering manager at Central Middlesex County Hospital.

This appointment was regarded by the County Council as an experiment, and it was intended, if the experiment were successful, to make similar appointments to the other County hospitals. The Council hope that this new system will introduce better methods into existing kitchens and dining rooms and that the cost of the scheme will be offset by elimination of waste and more expert buying.

CLINICAL PHOTOGRAPHY.

During the year clinical photographers were appointed to several of the Council's hospitals and efforts were made to place upon a more systematic footing the photographic departments which had evolved in a somewhat amateur way.

The two main functions of clinical photography are—

- (1) to provide an accurate, objective record of the changes in a patient undergoing treatment for injury or disease; and
- (2) to provide material for teaching purposes.

The scope and usefulness of clinical photography are almost without limit. By its means, for example, the alteration in size and appearance of a tumour under treatment can be accurately recorded, without dependence upon subjective impressions of the surgeon; accurate evidence of returning mobility in a stiff joint can be provided; regular portraits will demonstrate the change in facial expression of a patient undergoing psychiatric treatment, whilst the place of clinical photography in plastic surgery is too obvious to need description. For the demonstration and recording of certain changes, recourse to cinematography is desirable; colour photography has a place especially in connection with diseases of the skin; and special techniques have to be evolved for the photography through the endoscope of the internal parts of the body.

Properly displayed and documented photographs are a most valuable adjunct to the ordinary methods of medical teaching. These include not only representations of clinical conditions, but also records of morbid anatomical specimens from the theatre or post-mortem room, and photomicrographs, that is, photographs of microscopical preparations. This is a branch which calls for the display of considerable technical skill.

Other routine technical processes also are involved in the preparation of teaching material, *e.g.*, the reduction of X-ray films and the preparation of lantern slides.

Departments of clinical photography have been evolved and are in a high state of development in some of the hospitals of the U.S.A. and well organised departments are in existence in some of the teaching hospitals in this country. In the Middlesex County hospitals, however, clinical photography has so far been in a rudimentary stage, although the Council already have supplied some of the County hospitals with a considerable quantity of expensive photographic equipment. In every one of the Council's general hospitals there is abundant scope for the services of a department of clinical photography for there is no doubt that such a department is a valuable asset in the proper treatment of patients who may be under the hospital's care.

INSPECTION AND SUPERVISION OF FOOD.

The Acts and Regulations governing the supervision of food supplies which are administered by the County Council deal with (a) certain powers and duties connected with the production of milk, and (b) adulteration of food.

MILK PRODUCTION.

Samples of milk are taken by inspectors of the Public Control Department either in course of retail or at the farms of origin, when these are situated in Middlesex, and submitted to examination for the presence of tubercle bacilli in the pathological laboratory of Harefield County Hospital. Prior to 1943 these examinations were carried out at the Lister Institute of Preventive Medicine and Harefield County Hospital commenced operations in May, 1943. The arrangements have continued to work very smoothly.

The following tables show the results which have been obtained for each of the last ten years :—

Year.	Number of samples for which a definite result was obtained.	Number containing living tubercle bacilli.	Percentage of tubercle-infected milk.
1938	278	16	5.7
1939	193	10	5.1
1940	267	19	7.1
1941	285	16	5.6
1942 (January-June)	136	6	4.4
1943 (May-December)... ..	256	4	1.6
1944	384	17	4.4
1945	376	8	2.1
1946	391	17	4.3
1947	352	10	2.8

Six of the 10 infected samples were produced in Middlesex. Diseased animals were traced at six of the farms concerned, three of these being in Middlesex, and seven cows were slaughtered.

The routine veterinary inspection of Middlesex herds is carried out by officials of the Ministry of Agriculture. The Divisional Inspector of the Ministry furnishes the County Council with information as to the results of veterinary inspections and tuberculin tests of Middlesex herds. The figures for the past six years are set out in the table below :—

Year.	Number of clinical examinations of bovine animals.	Number found in which tuberculosis was suspected.	Number slaughtered.	Number in which diagnosis was not confirmed.
1942	8,582	21	18	3
1943	10,350	16	16	—
1944	5,279	20	19	1
1945	5,507	18	17	1
1946	4,589	19	19	—
1947	2,635	8	7	1

MILK (SPECIAL DESIGNATIONS) ORDERS, 1936 AND 1938.—The County Council is responsible under these Orders for the granting of licences for the production of Tuberculin-tested and Accredited milk. Before the issue of any such licence, the farm concerned is visited by a senior medical officer of the Public Health Department, accompanied by the Milk Production Officer on the staff of the Middlesex Agricultural Executive Committee, or his assistant, and an enquiry is conducted into the condition of the premises and the herd and the suitability of the technique adopted. Notice of the visit is also sent to the local sanitary authority of the district where the farm is situated and usually either the medical officer of health or the senior sanitary inspector attends.

Following the issue of licences, regular routine samples of milk in the course of production are taken at the farms, and submitted to biochemical and bacteriological investigation with a view to ascertaining that a satisfactory standard of cleanliness is being maintained.

Inspection and Supervision of Food.

During 1947, licences for the production of Tuberculin-tested milk were granted to 22 farmers, while 27 received licences for the production of Accredited milk. Twelve of the herds belonging to holders of T.T. licences were also attested under the scheme of the Ministry of Agriculture.

In addition to the measures of co-operation between the County Council, the Middlesex Agricultural Executive Committee and the local sanitary authorities, which were recorded in the report on 1944, the Deputy County Medical Officer attended the quarterly meetings of the Milk Sub-Committee of the Middlesex Agricultural Executive Committee and advised the Committee on matters relating to clean milk production.

ADULTERATION.

The Acts and regulations dealing with adulteration of foods and drugs are administered by the Public Control department of the County Council. I am indebted to Mr. S. J. Pugh, Chief Officer of that department, for information regarding this branch of work.

During 1947, 1,463 samples, of which 170 were found to be adulterated or not up to standard, were submitted for examination by the County Analyst.

In addition to the above, 4,713 samples were examined by officers of the Public Control department.

No action was taken during the year under the Public Health (Dried Milk) Regulations, 1923, 1927 and 1943, or the Public Health (Condensed Milk) Regulations, 1923, 1927 and 1943.

DEFENCE (GENERAL) REGULATIONS, 1939—REGULATION 55G.

In January, 1944, Regulation 55G was made under the provisions of the Defence Regulations. This regulation empowers the Minister of Food to require that in areas "specified" by him all milk, other than Accredited or Tuberculin-tested, supplied to consumers, shall be either pasteurised, heat-treated, or sterilised. Prescribed tests for ascertaining whether milk has been subjected to the proper treatment, have been laid down. The County Council is charged with the enforcement of the regulation and is required to arrange for the sampling and testing of all the classes of milk covered by the regulation.

Samples of "designated" milk taken at the farms on behalf of the County Council in pursuance of its function as the Licensing Authority, under the arrangements made by the Public Health Committee, are not affected by the regulation. Other samples, taken in pursuance of the requirements of Regulation 55G, are procured and dealt with through the Public Control Department of the County Council.

The following table which has been supplied to me by Mr. Pugh, sets out details of the samples taken by officers of his department during 1947.

PARTICULARS OF SAMPLES OF MILK PROCURED BY OFFICERS OF THE PUBLIC CONTROL DEPARTMENT DURING 1947, IN PURSUANCE OF REGULATION 55G OF THE DEFENCE (GENERAL) REGULATIONS, 1939.

	Passed.	Failed.	No Test Applied.	No. of Samples Examined.
<i>Pasteurised Milk—</i>				
Phosphatase test	341	8	—	} 349
Methylene blue test	339	8	2	
<i>Tuberculin Tested (Pasteurised) Milk—</i>				
Phosphatase test	11	—	—	} 11
Methylene blue test	11	—	—	
<i>Heat-treated Milk—</i>				
Phosphatase test	282	15	—	} 297
Methylene blue test	281	12	4	
<i>Sterilised Milk—</i>				
Phosphatase test	37	—	—	} 37
Methylene blue test	37	—	—	
Total number of samples examined during year				694

All samples were subjected to the tests prescribed by the Heat-treated Milk (Prescribed Tests) Order, 1944, except where it was not possible to keep samples at an atmospheric shade temperature not exceeding 65° Fahrenheit in which cases no Methylene Blue Test was applied.

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